bsccp | The British Society for Colposcopy and Cervical Pathology

BSCCP 2018

Annual Scientific Meeting
30th April – 2nd May 2018
Manchester Central, UK

Final Programme and Book of Abstracts

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Contents

Welcome

Welcome to Manchester for the annual BSCCP meeting. The local organising committee from across the NW of England hope you enjoy both the social and educational programme. There are many new developments impacting on the way we manage women within the cervical screening programme and the local organising committee have designed a comprehensive meeting covering important topics including primary HPV screening, the impact of vaccination on screening, multivalent vaccines, multi-focal disease, Quality Assurance, NICE review on new adjuncts to colposcopy and other important issues. We are privileged that many international experts from the USA, Australia, New Zealand, Greece and France are participating in our national meeting and sharing their expertise. We hope you enjoy your time in Manchester.

Pierre Martin-Hsch

Pierre Martin-Hirsch
Lancashire Teaching Hospitals NHS Trust, UK
Chair of the Local Organising Committee

Local Organising Committee Members

Emma Crosbie : Manchester University NHS Foundation Trust, UK

Saad Ali : Manchester University NHS Foundation Trust, UK

Richard Slade : The Christie NHS Foundation Trust, UK

Sean Burns : Manchester University NHS Foundation Trust, UK

Conference Organisers

in conference

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Established 1989

BSCCP 2018 Secretariat

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Web: www.bsccpconference.co.uk
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Next Meeting

BSCCP 2019

Wednesday 8th May – Friday 10th May 2019

Bournemouth International Centre
(BIC)
Bournemouth, UK

Scientific Programme

BSCCP 2018: The Future of Cervical Screening and Colposcopy

Monday 30th April		Location
10.00 – 13.00	**Executive Committee Meeting** (Invitation Only)	Exchange Hall 10
11.00 – 17.30	**Registration / Speaker Preview Open**	Lower Ground Foyer/Office 1
14.30 – 17.30	**Trainers Seminar** Free to attend, but places MUST be pre-booked (only free of charge if attending full conference)	Exchange Hall 9
17.30 – 19.00	**Welcome Reception**	Exchange Hall

Tuesday 1st May		Location
08.00 – 18.00	**Registration and Speaker Preview Open**	Lower Ground Foyer/Office 1
09.00 – 09.10	**Welcome** ***Pierre Martin-Hirsch, Chair Local Organising Committee***	Auditorium
09.10 – 10.10	**Plenary Session 1** ***Chairs: Pierre Martin-Hirsch and Theresa Freeman-Wang***	Auditorium
09.10 – 09.40	**Natural History of HPV Infection and Triggers of Cervical Carcinogenesis: How Has the Evidence Evolved?** ***Dr Barbara Moscicki, ASCCP, USA***	
09.40 - 10.10	**Screening in the Over 60s; Is it Effective?** ***Professor Peter Sasieni, Wolfson Institute, UK***	
10.10 – 10.20	**Panel Discussion**	
10.20 – 10.50	**Proffered Papers: Session 1** ***Chairs: Pierre Martin-Hirsch and Theresa Freeman Wang***	
10.20 – 10.35	**O-1: iKnife - Improving Fertility Preservation Techniques in Pre-Invasive and Invasive Cervical Disease** ***Dr Menelaos Tzafetas, Imperial College London, UK***	
10.35 – 10.50	**O-2: HPV Primary Screening Pilot Study: Molecular Testing of Potential Triage Strategies for HPV-Positive Women** ***Ms Christine White, Trinity College Dublin, Ireland***	
10.50 – 11.20	**Coffee/ Tea/ Exhibition/ Poster Viewing**	Exchange Hall
11.20 – 12.20	**Plenary Session 2** ***Chairs: Deirdre Lyons and Cath Holland***	Auditorium
11.20 – 11.40	**Current Evidence for the Management of VIN** ***Dr Amanda Tristram, Wellington, New Zealand***	
11.40 – 12.20	**Current Evidence for Management AIN** ***Professor Andrew Renehan, University of Manchester, UK***	
12.20 – 13.00	**BSCCP AGM**	
13.00 – 14.00	**Lunch Exhibition/ Poster Viewing**	Exchange Hall

Tuesday 1st May		Location
14.00 – 15.20	**Plenary Session 3** ***Chairs: John Tidy and Sean Burns***	Auditorium
14.00 – 14.10	**Presentation of Founders Medal: Patrick Walker, UK** ***Presented to: Professor Walter Prendiville, International Agency for Research on Cancer (W.H.O.), Lyon, France***	
14.10 – 14.30	**Innovation, Evolution, Vaccination: What will Work in LMICs?** ***Professor Walter Prendiville, International Agency for Research on Cancer (W.H.O.), Lyon, France***	
14.30 – 15.15	**Proffered Papers: Session 2** ***Chairs: John Tidy and Sean Burns***	
14.30 – 14.45	**O-3: Knowledge, Attitudes and Beliefs of Parents Regarding Human Papillomavirus (HPV) Vaccination: Systematic Review and Meta-Ethnographic Synthesis** ***Ms Sarah Marshall, University College Cork, Ireland***	
14.45 – 15.00	**O-4: Identification of Novel Disease Markers to Improve Detection of CIN in HPV Immunised Women** ***Dr Emmanouil Kalampokas, NHS Grampian and Lothian, UK***	
15.00 – 15.15	**O-5: First Report of the National Cervical Screening Patient Experience Survey by the Northern Ireland Colposcopy Collaborative Group** ***Dr Catherine Malone, Western Trust, UK***	
15.15 – 15.45	**Coffee/ Tea/ Exhibition/ Poster Viewing**	Exchange Hall
15.45 – 17.15	**Plenary Session 4** ***Chairs: Deirdre Lyons and Saad Ali***	Auditorium
15.45 – 16.15	**Cervical Screening Quality Assurance in England** ***Ms Philippa Pearmain, Cancer Screening Quality Assurance, UK***	
16.15– 16.30	**Quality Assurance in Wales, Scotland and Northern Ireland** ***Dr Camille Busby-Earle, Royal Infirmary of Edinburgh, UK***	
16.30 – 17.00	**Challenges for Cervical Screening in The Next Decade** ***Ms Ruth Stubbs, PHE Screening, UK***	
17.00 – 17.15	**O-11: Management of Post-Menopausal Women with Unsatisfactory Colposcopy, Referred with High Risk HPV Positive Normal or Low Grade Dyskaryotic Smear - A Survey Amongst All BSCCP Registered Colposcopists** ***Dr Annabel Stout, Sandwell and West Birmingham Hospitals NHS Trust, UK***	
19.30 - Midnight	**Conference Dinner**	The Principal Hotel

Wednesday 2nd May		Location
08.00 – 17.40	**Registration and Speaker Preview Open**	Lower Ground Foyer/Office 1
09.00 – 10.00	**Plenary Session 5** ***Chairs: Maggie Cruickshank and Henry Kitchener***	Auditorium
09.00 – 09.30	**Prophylactic and Therapeutic HPV Vaccination** ***Dr Warner Huh, University of Alabama, USA***	
09.30 – 10.00	**Impact of HPV Vaccination in Australia** ***Professor Karen Canfell, University of Sydney, Australia***	
10.00 – 10.10	**Panel Discussion**	
10.10 – 10.40	**Proffered Papers: Session 3** ***Chairs: Maggie Cruickshank and Henry Kitchener***	
10.10 – 10.25	**O-6:The Role of The Vaginal Microbiota in The Progression or Regression of Untreated CIN2 Lesions** ***Dr Anita Mitra, Imperial College London, UK***	
10.25 – 10.40	**O-7: Test of Cure - Outcomes from Eight Years' Experience in a UK Colposcopy Service** ***Professor John Tidy, Sheffield Teaching Hospitals NHS Foundation Trust, UK***	
10.40 – 11.10	**Coffee/ Tea/ Exhibition/ Poster Viewing**	Exchange Hall
11.10 – 12.10	**Plenary Session 6 - Liz Dollery/ Jo's Cervical Cancer Trust Lectures** ***Chairs: Richard Slade and Warner Huh***	Auditorium
11.10 – 11.40	**Pregnancy and Oncological Outcomes after Fertility-Sparing Surgery for Cervical Cancer** ***Dr Denis Querleu, ESGO, France***	
11.40 – 12.10	**Pregnancy and Oncological Outcomes after Fertility-Sparing Surgery for Cervical Pre-Cancer** ***Professor Evangelos Paraskevaidis, University of Ioannina, Greece***	
12.10 – 13.00	**The Patient Journey Before, During and After Colposcopy** ***Jo's Cervical Cancer Trust: Dr Claire Cohen and Mr Robert Music***	
13.00 – 14.00	**Lunch/ Exhibition/ Poster Viewing**	Exchange Hall

Wednesday 2nd May		Location
14.00 – 15.10	**Plenary Session 7** ***Chairs: Emma Crosbie and Barbara Moscicki***	Auditorium
14.00 – 14.30	**Current Evidence from Primary HPV Screening Pilot Study and Future Implementation** ***Professor Henry Kitchener, The University of Manchester, UK***	
14.30 – 15.00	**Screening after Vaccination** ***Professor Karen Canfell, University of Sydney, Australia***	
15.00 – 15.10	**Discussion**	
15.10 – 16.00	**Proffered Papers: Session 4** ***Chairs: Emma Crosbie and Barbara Mosicki***	
15.10 – 15.25	**O-8: The Value of Repeat Loop Exicison for Stage 1a1 Cervical Cancer** ***Dr Marc Wilkinson, University Hospitals of North Midlands NHS Trust, UK***	
15.25 – 15.40	**O-9: Exploration of Cervical Cancer and CIN Cell Models for Use in Translational Research** ***Dr Rachel O'Donnell, Northern Gynaecological Oncology Centre (NGOC) and Northern Institute for Cancer Research (NICR), UK***	
15.40 – 16.00	**O-10: Impact of the Implementation of Human Papillomavirus Triage (HPVt) on Borderline and Low-grade Colposcopy Referrals: Review of KC65 Data April 2007 to March 2017 in the North of England** ***Mrs Emma Johnson, Public Health England, UK***	
16.00 – 16.30	**Coffee/ Tea/ Exhibition/ Poster Viewing**	Exchange Hall
16.30 – 17.30	**Plenary Session 8** ***Chairs: Pierre Martin-Hirsch and Sean Burns***	Auditorium
16.30 – 16.50	**Cervical Screening Call-Recall Transformation- Project Overview** ***Ms Karen Burgess, Business Readiness Lead Primary Care Support England, UK***	
16.50 – 17.10	**NICE Review on Adjuncts to Aid Colposcopy** ***Miss Theresa Freeman-Wang, Whittington Health, UK***	
17.10 – 17.30	**Conservative Management of CIN2** ***Dr Mara Kyrgiou, Imperial College London, UK***	
17.30 – 17.40	**Presentations and Closing Remarks**	

General Information

Welcome Reception

Monday 30th April 17:30 – 19:00
Manchester Central, Exchange Hall

The Welcome Reception will be held at Manchester Central in Exchange Hall. The cost for this event is included in the registration fee, but places must be pre-booked. Refreshments and canapés will be served and the rest of the evening is free for your own dinner plans.

Conference Dinner

Tuesday 1st May 19:30 – Midnight
The Principal Manchester, Oxford Street, Manchester M60 7HA

The Dinner will include a welcome reception followed by a three-course menu. Places are limited at dinner so early booking is advised! Please ask at the Registration Desk for late ticket availability.

Please note that coaches are not booked for either journey as the venue is within walking distance from Manchester Central.

Certificates of Attendance

Certificates of Attendance will be emailed directly to all delegates on the last day of the meeting. 11 CPD points will be awarded for the main conference and 2 CPD points for the Trainers Seminar.

Exhibition/Posters

The Exhibition and Posters will be located in the Exchange Hall on level 1 Upper Floor Foyer. The Exhibition will be open at the following times:

Monday 30th April	17:30hrs – 19:00hrs
Tuesday 1st May	08:30hrs – 17:15hrs
Wednesday 2nd May	08:30hrs – 16:30hrs

Insurance

The Conference Organisers cannot accept any liability for personal injuries or for loss or damage to property belonging to delegates, either during, or as a result of the meeting. Please check the validity of your own personal insurance before travelling.

Posters

There will be two dedicated poster sessions from 13:15 on Tuesday 1st May and from 13:15 on Wednesday 2nd May. Posters will be available to view for the remainder of the conference during normal opening hours. Authors will be by their boards to discuss their posters at the following times:

Tuesday 1st May 13:15 – 14:00	Wednesday 2nd May 13:15 – 14:00
Audit/Quality Assurance	**Audit/Quality Assurance**
P-1, P-3, P-5, P-7, P-9, P-11, P-13, P-15, P-17, P-19, P-21, P-23, P-25, P-27, P-29, P-31, P-33, P-35, P-37, P-39, P-41, P-43, P-45, P-47, P-49, P-51	P-2, P-4, P-6, P-8, P-10, P-12, P-14, P-16, P-18, P-20, P-22, P-24, P-26, P-28, P-30, P-32, P-34, P-36, P-38, P-40, P-42, P-44, P-46, P-48, P-50, P-52
Pathology	**Pathology**
P-53, P-55, P-59	P-54, P-56, P-58
Science/Epidemiology	**Science/Epidemiology**
P-63, P-65, P-67, P-69, P-71, P-73, P-61, P-75, P-77, P-79, P-81	P-62, P-64, P-66, P-68, P-70, P-72, P-74, P-76, P-78, P-82
Training/Education	**Training/Education**
P-83, P-89, P-91	P-84, P-86, P-90, P-92
Treatment/Morbidity	**Treatment/Morbidity**
P-93, P-95, P-97, P-99, P-101, P-103, P-105, P-107, P-109, P-111, P-113, P-115, P-117	P-94, P-96, P-98, P-100, P-102, P-104, P-106, P-108, P-110, P-112, P-114, P-116, P-118

Registration/Information Desks

All delegates will receive their name badge, ordered tickets and all relevant conference information upon arrival at Manchester Central. The registration desk will be located on the Exchange Hall Lower Ground Foyer.

The Registration desk will be open at the following times:

Monday 30th April	11:00 – 17:30
Tuesday 1st May	08:00 – 17:15
Wednesday 2nd May	08:00 – 17:40

Speaker Presentation Check In (Office 1- Lower Ground Foyer)

Presenters must check in their presentation at least four hours before they are due to speak. On the first day, the Speaker Presentation Room will be open from 08:00 – 17:30 and priority will be given to speakers in the morning session.

It will not be possible to check in presentations in the main plenary room. Staff will be on-hand in the Speaker Preview room to assist. Presenters do not need to bring a laptop as presentations will be loaded onto a main computer.

Conference App

The conference app is an easy way to look up sessions, plan your event schedule and participate in live voting. Search for BSCCP in App Store or Google Play Store and download for IOS and Android devices.

Poster Voting

You will be able to vote for the best poster through the mobile app with results being announced at the end of the conference. Please note that only one vote per person will be permitted.

WiFi

Please follow the instructions below for complimentary Wi-Fi access:

- Connect to the MCCC wireless network
- The portal page should load automatically. If not, just open your web browser
- Click Login to Manchester Central's Free Wi-Fi
- Enter your information and read the terms and conditions
- Once confirmed, you're connected

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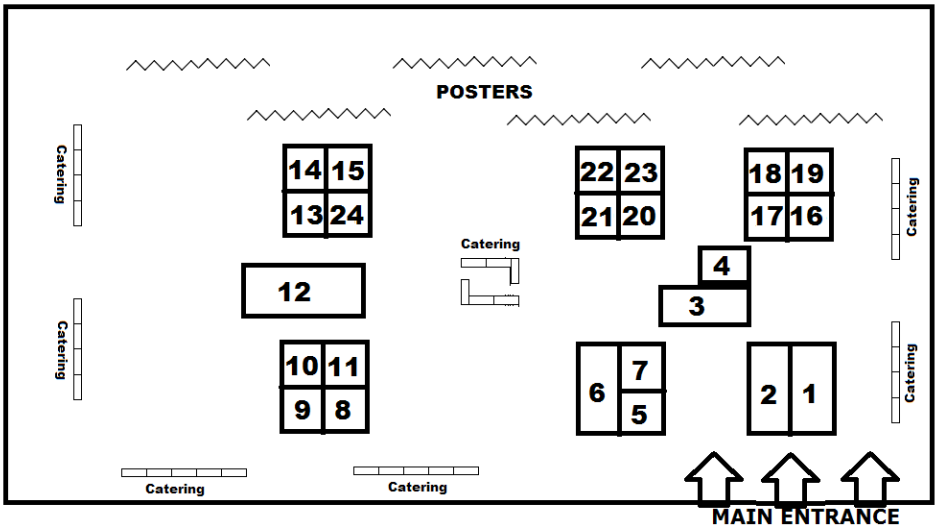
Exhibition Floorplan

Exchange Hall



Stand No.	Company	Stand No.	Company
1	Zilico Limited	12	DYSIS Medical Ltd
2	MSD	13	Timesco Healthcare Ltd
3	DTR Medical Ltd	14	Jo's Cervical Cancer Trust
4	DP Medical Systems Ltd	15	Otto Bock PUR Life Science GmbH
5	LINET UK Ltd	16	Gemini Surgical
6	Eurosurgical Ltd	17	Femcare-Nikomed Ltd
7	RB Medical	18	Sigmacon
8	Irisoft	19	Pennine Healthcare
9	Stericom Ltd	20	Mobile ODT
10	Hologic	21	NEPSEC
11	Roche	22	BD Lifesciences

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THE BRITISH SOCIETY FOR COLPOSCOPY AND CERVICAL PATHOLOGY (BSCCP)

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JO'S CERVICAL CANCER TRUST

Stand 14

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Contact: Claire Cohen

Tel: 020 3096 8100
Email: claire@jostrust.org.uk
Website www.jostrust.org.uk

Jo's Cervical Cancer Trust is the UK's only charity dedicated to those affected by cervical cancer and cervical abnormalities. It offers a range of online and face to face support and information including: information materials, a Helpline 0808 802 8000, online forum, local support groups and an Ask The Expert service.

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NORTH OF ENGLAND PATHOLOGY AND SCREENING EDUCATION CENTRE

Stand 21

c/o Sheffield Teaching Hospitals NHS Foundation Trust,
Unit 3, Fryers Way, Wakefield WF5 9TJ

Contact: Kathryn Hawke

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Email: Kathryn.hawke@sth.nhs.uk
Website: www.nepsec.org.uk

North of England Pathology and Screening Education Centre (NEPSEC) was established by merger of the East Pennine and North West Cytology Training Centre. Providing training for staff and professional groups in the NHS Cervical Screening Programme, it also provides high quality training in other cancer screening programmes and cellular pathology.

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Stand 15

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Oral Abstracts

O-1 iKnife - IMPROVING FERTILITY PRESERVATION TECHNIQUES IN PRE-INVASIVE AND INVASIVE CERVICAL DISEASE

Menelaos Tzafetas[1,2], Anita Mitra[1,2], Ilka Kalliala[1], Sarah Lever[1,2], Zsolt Bodai[1], Adele Savage[1], Fransesca Rosini[1], David Phelps[1], David MacIntyre[1], Deirdre Lyons[2], Raspal Flora[2], Sadaf Ghaem-Maghami[1,2], Zoltan Takats[1], Maria Kyrgiou[1,2]

[1]Imperial College London, United Kingdom, [2]Imperial College Healthcare NHS Trust, United Kingdom

Background:

Cervical cancer and its precancerous form cervical intraepithelial neoplasia (CIN) commonly affect women of reproductive age. Fertility-preserving trachelectomy procedures are available, but if the excisional margins are not cancer-free, these women must undergo a hysterectomy. Frozen section is the current method for intraoperative assessment of margin status at the time of trachelectomy, with an accuracy that has been quoted as 84%. Rapid Evaporative Ionization Mass Spectrometry (REIMS), also known as the iKnife (intelligent Knife), analyzes electrosurgery-generated aerosols, through mass spectrometry providing real time tissue identification, with potential for use as an intraoperative diagnostic technique. In addition to providing real-time information, the iKnife has the potential to improve the accuracy of intraoperative margin detection.

Aims:

We conducted a pilot study showing that the iKnife can differentiate between abnormal and healthy cervical tissue.

Material and Methods:

Cervical biopsies of 112 women were cut using a Covidien diathermy hand-piece. The surgical aerosol produced was transferred into a Waters Xevo G2-S mass-spectrometer. Multivariate statistical analysis of mass spectroscopic spectral data was performed, including principal components and linear discriminant analysis performed using Offline Model Builder software. Correct classification rate was checked using leave one patient out cross-validation.

Results:

The study showed correct classification with the iKnife of 91%, with correct identification of cancer tissue of 88.5% and of healthy tissue of 92.5%. Ongoing sample processing is currently being undertaken to investigate the use of the iKnife in differentiating grades of CIN.

Discussion:

The iKnife will allow clinicians to make instant management decisions, by minimising patients' anxiety, risk of non-compliance with improved patients' satisfaction and great financial benefits to the health service. The ability to ensure the margins of excision are clear from disease will minimise the risk of future pre-invasive or invasive recurrence and need for repeat treatments that multiplies the risk of adverse future reproductive sequelae.

O-2 HPV PRIMARY SCREENING PILOT STUDY: MOLECULAR TESTING OF POTENTIAL TRIAGE STRATEGIES FOR HPV-POSITIVE WOMEN

Christine White[1], Stephen Reynolds[1], Roisin O' Brien[2], Padma Naik[2], Trinh Pham[2], Loretto Pilkington[2], Imogen Sharkey Ochoa[1], Carrie Powles[3], Fiona Wright[3], Jacqui BarryOCrowley[2], Prerna Tewari[1], Sharon O'Toole[1], Charles Normand[1], Linda Sharp[4], Grainne Flannelly[3], Cara Martin[1], John O' Leary[1]

[1]Trinity College Dublin, Ireland, [2]Coombe Women and Infant's University Hospital, Ireland, [3]National Screening Service, Ireland, [4]Newcastle University, United Kingdom

Introduction:

HPV primary cervical screening requires specific second round triage tests to avoid large numbers of unnecessary referrals to colposcopy. This study investigates a panel of triage options including HPV16/18 genotyping, cytology and dual staining for p16/Ki-67 in women who test positive for HPV in primary screening.

Methods:

In partnership with CervicalCheck, The National Cervical Screening programme, CERVIVA are undertaking a longitudinal observational HPV primary screening study which will evaluate different triage strategies for management of a HPV-positive primary screening test. Cervical cytology samples from approximately 13,000 women undergoing routine cervical screening will be tested for HPV DNA (cobas 4800 HPV test) and mRNA (Aptima HPV assay). All HPV-positive women will be further assessed with HPV16/18 genotyping, cytology and p16/Ki-67 dual staining. The performance of different triage strategies will be examined both cross-sectionally and longitudinally over two screening rounds for detection of CIN2+.

Results:

To date 12,300 woman have been recruited into the study. The median age of the population is 39 years. HPV DNA testing, performed on 10,684 samples, shows a 14.7% positivity rate. HPV mRNA, performed on 10,801 samples, gave a 13.0% positive rate. HPV mRNA had a significantly lower positivity rate in women under the age 40 years and women with a negative cytology (p=0.001). Overall, 32% of HPV positive women were positive for HPV16/18, 30% had an abnormality on cytology and 32% tested positive for p16/Ki-67. p16/Ki-67 demonstrated the highest sensitivity and specificity for detection of CIN2+ (0.91, 0.78 respectively), when combined with HPV16/18 genotyping sensitivity was similar but specificity was significantly reduced (0.93, 0.67 respectively).

Conclusion:

Here we present the preliminary cross-sectional data in relation in to each of the putative triage tests. p16/Ki-67 appears to be a sensitive and specific triage test for women who test positive for HPV in primary screening.

O-3 KNOWLEDGE, ATTITUDES AND BELIEFS OF PARENTS REGARDING HUMAN PAPILLOMAVIRUS (HPV) VACCINATION: SYSTEMATIC REVIEW AND META-ETHNOGRAPHIC SYNTHESIS

Sarah Marshall[1], Aoife Fleming[1,2], Anne Moore[1], Laura Sahm[1]

[1]*University College Cork, Ireland,* [2]*Mercy University Hospital, Ireland*

Introduction

Human papillomavirus (HPV) is the most common viral infection of the reproductive tract. Three prophylactic HPV vaccines are available for the prevention of HPV-related disease. Despite clinical success, immunisation rates remain sub-optimal. The purpose of this systematic review is to synthesise qualitative literature to achieve an understanding of the drivers and barriers to HPV vaccine acceptability and to determine targets for an intervention to improve vaccine uptake.

Methodology

The seven-step model of meta-ethnography described by Noblit and Hare was used. The quality of the studies was assessed using the CASP for qualitative research. The ENTREQ statement was used to guide reporting of results.

Results

Thirty-three studies were included in the final analysis, compiling the opinions of 1280 parents/guardians from 14 countries. Five key concepts that reflected the principal findings of studies were determined: is prevention better than cure; the fear of the unknown; limited knowledge and understanding; complex vaccination decisions and; parental responsibility. Third-order interpretations were developed and linked using a 'line of argument' to develop a conceptual model.

Implications and Contribution

The majority of parents are motivated to protect their children and prevent disease. The link to sexual intercourse associated with the HPV vaccine often complicates the vaccination decision. Vaccine manufacturers, national healthcare systems and healthcare providers can reinforce the importance of HPV immunisation and reiterate the rationale behind vaccination recommendations, by providing unambiguous information in a timely manner, transparently addressing parental concerns regarding vaccine safety and efficacy, whilst taking account of cultural and religious sensitivities and varying health literacy levels. In recent years, there has been a reduction in HPV vaccine uptake worldwide. Currently, there is a paucity of published qualitative studies addressing these new vaccine concerns. Therefore, such research is required to guide intervention development, to improve HPV vaccine uptake.

O-4 IDENTIFICATION OF NOVEL DISEASE MARKERS TO IMPROVE DETECTION OF CIN IN HPV IMMUNISED WOMEN

Emmanouil Kalampokas[1], Kate Cuschieri[2], Fiona Payne[1], Theodore Robert Hupp[2], Margaret Eleanor Cruickshank[1]

[1]*University of Aberdeen, United Kingdom,* [2]*University of Edinburgh, United Kingdom*

Background:

The HPV immunization programme was introduced in the UK in 2008 with high uptake and reported reduction in HPV infection, abnormal smears and CIN. Screening is still necessary to reduce cervical cancer rates but may change in test and delivery in response to the effects of the vaccine.

Aim of our study: This is an exploratory study to identify potential novel markers for cervical disease in women who have been offered HPV vaccination.

Meth-ods:

Women referred to colposcopy in Aberdeen Royal Infirmary by the cervical screening programme born after 1/09/1990 i.e. eligible for HPV vaccination. Women who consented had an additional cytology brush sample for HPV DNA and mRNA genotypes testing. An additional biopsy was taken for p16 and Ki67 immunohistochemistry and for proteomics-based discovery. SWATH mass spectrometry was used to quantify proteins differentially or commonly expressed between patients samples and immunoblotting was used to begin to confirm certain relevant biomarkers.

Results:

To date, 5 women have been recruited with median age 27 (range 23-29) with high grade cytology. None have been vaccinated. 4 (80%) women have been using non-protective barriers as contraception. 2 (40%) are a current or ex-smoker. Histological diagnosis was 3 (60%) CIN2 and 2 (40%) CIN3. Adequate protein for proteomic analysis was obtained from both cytology and biopsy samples. HPV testing will be done when recruitment is completed. Preliminary analysis indicates a high degree of proteome similarity between patients. In addition, we find a high degree of differential protein expression in comparing cytological brush sample compared to biopsy. Biopsies were confirmed to express the biomarker p16, whilst the biopsied were used to identify a novel biomarker that is part of the interferon responsive oncogenic signalling pathway.

Conclusion:

We anticipate completing recruitment and sample analysis by April and will present these exploratory results in May 2018.

O-5 FIRST REPORT OF THE NATIONAL CERVICAL SCREENING PATIENT EXPERIENCE SURVEY BY THE NORTHERN IRELAND COLPOSCOPY COLLABORATIVE GROUP

Catherine Malone[1], Declan Quinn[2], Catherine Bane[3]

[1]Western Trust , United Kingdom, [2]Northern Trust, United Kingdom, [3]Public Health Agency, United Kingdom

Background

For the first time as a national collaboration between NI colposcopy units we sought feedback from women on their cervical screening experience. The aims were to ascertain the quality of information women receive and improve service delivery.

Methods

A questionnaire was jointly developed by the Quality Assurance Reference Centre and colposcopists, drawing on existing patient satisfaction surveys used in other UK units and NI screening programmes. After an initial pilot, 100 questionnaires were delivered to each colposcopy unit; anonymised responses were collected from May-December 2017. Only patients who had cervical screening leading to colposcopy referral were included; the survey was handed out after their colposcopy appointment. Data analysis was performed for NI as a whole and per trust (5 in NI).

Results

659 responses were collected from 10/11 colposcopy units in NI (one unit did not participate)- response rate 60%. Overall patient satisfaction rates were high at 95%. There was a wide geographical spread in terms of patients reporting no pre-smear information, ranging from 16%-32%; of those who did receive information 95% found it useful and 13% would have liked more. 12-26% across 5 trusts did not receive information before colposcopy, which can be distressing for women as they are unprepared and often require extra counselling at clinic. Only 70% received information on what to expect after colposcopy.

Conclusion

Most women in NI reported a positive experience with all aspects of the cervical screening programme. Local variations in practices and information given to patients however needs standardised to allow enhanced patient experience and understanding, irrespective of their geographical location. NI also has a high rate of opportunistic screening, out-of-programme, which may explain lack of consistency of information delivery. To tackle this we will design new post-treatment information sheets and ensure information is consistently communicated to patients across all trusts.

O-6 THE ROLE OF THE VAGINAL MICROBIOTA IN THE PROGRESSION OR REGRESSION OF UNTREATED CIN2 LESIONS

Anita Mitra[1], David MacIntyre[1], Ann Smith[2], Julian Marchesi[1,2], Yun Lee[1], Evangelos Paraskevadis[3], Phillip Bennett[1], Anna-Barbara Moscicki[4], Maria Kyrgiou[1]

[1]Imperial College London, United Kingdom, [2]Cardiff University, United Kingdom, [3]University of Ioannina, United Kingdom, [4]University of California, United States

Background:

The vaginal microbiota (VMB) and, in particular, a high-diversity, Lactobacillus spp. deplete community state type (CST) IV has been associated with increased acquisition and persistence of HPV infection, and increased CIN disease grade. The impact of the VMB in the natural history of CIN in serial samples has not been evaluated.

Aim:

Assess whether VMB composition impacts the chance of progression or regression in women with untreated CIN2 lesions.

Materials and Methods:

Population: observational study of Non-pregnant, premenopausal women attending colposcopy clinic with histologically-proven CIN2 in San Franscisco, USA.

Analysis: Bacterial DNA was extracted from serially collected liquid-based cytology samples and sequenced using the Illumina MiSeq platform. Heirarchical clustering of sequence data was used to examine bacterial species classification data.

Results:

Of the 87 women included in the cohort, 44.7% had regressed by 12 months (39/87), 66.7% (58/87) by 24 months, and 73.5% (64/87) by 36 months. CST IV at baseline was associated with higher rates of disease persistence and slower disease regression compared to Lactobacillus spp.-dominant CST's. Women with CST I (Lactobacillus crispatus-dominant) at baseline were significantly more likely to regress by 24 months compared to those with CST IV (p=0.0001, one-way ANOVA). Anaerobic species including Megasphaera (p=0.011), Allisonella (p=0.022), Prevotella timonensis (p=0.026) and Gardnerella (p=0.035) were significantly more abundant in women with persistent disease at 12 months compared to those who regressed.

Conclusions:

Our findings suggest paucity of Lactobacillus spp. with growth of pathogents including Megasphera and Gardnerella may be associated with CIN2 persistence and slower regression. Further research in the impact of VMB on the natural history of CIN may help us identify a VMB composition and microbiological markers that may signify women at high risk of progression that require treatment and the development of new treatment targets.

O-7 TEST OF CURE - OUTCOMES FROM EIGHT YEARS EXPERIENCE IN A UK COLPOSCOPY SERVICE

Julia Palmer, **John Tidy**, Madeleine Macdonald, John Smith, Kay Ellis

Sheffield Teaching Hospitals NHS Foundation Trust, United Kingdom

Introduction

Despite introducing test of cure (TOC) into the cervical screening programme from April 2012, there has been a lack of published data concerning TOC in England. Sheffield has performed TOC since 1st February 2008. This study presents our data over an eight year period.

Methods

Retrospective cohort study with interval analysis 1st April 2008- 1st April 2017 performed at the Jessop Wing Colposcopy Unit, Sheffield, UK.

Results

- 4212 women were eligible for TOC; 3462 (82%) had their TOC sample within 12 months of LLETZ; 44% attended within the recommended time of six months.
- 2642 women (76%) were HPV negative thus discharged to routine recall.
- Thirteen women (<1%) had no HPV test performed as a result of laboratory pathway failure or TOC cervical sample performed outside of Sheffield laboratory leaving a TOC failure rate of 23% (n=807).
- The majority of women failing TOC had negative cytology (n=645; 19%); 120 (3%) had low-grade cytology; 42 (1%) high-grade cytology.
- Six women underwent hysterectomy following failed TOC sampling; none had residual CIN. Of the remaining 801 women 84 persistently failed to attend colposcopy.
- Of the 717 that attended, the majority (n=637; 18%) were discharged; 34 (<1%) remained on follow up; and 46 (1%) were found to have persistent HGCIN.
- 470 women (11%) had their TOC sample performed within three years of LLETZ.
- 52 women (1%) had a further documented sample at greater than three years following LLETZ procedure.
- 194 women (5%) had no record of TOC ever being performed.
- At the time of study closure 34 women (<1%) were not eligible for TOC.

Discussion

The presentation will consider:

- Duration at which TOC should be performed
- TOC DNA rates / colposcopy DNA rates
- TOC failure rates
- Persistent HGCIN rates
- Future management of negative cytology, hrHPV detected following treatment.

O-8 THE VALUE OF REPEAT LOOP EXICISON FOR STAGE 1A1 CERVICAL CANCER

Marc Wilkinson, Laura Gooch, Richard Todd, Charles Redman

University Hospitals of North Midlands NHS Trust, United Kingdom

Background:

Stage 1a1 cervical cancer is a microscopic condition, usually arising in a background of high grade CIN. It can be treated by local excision or hysterectomy depending on fertility wishes. For patients wishing to retain fertility if the invasive component is excised but pre-invasive component is incompletely excised, our practice is to perform a repeat loop excision to ensure no occult foci of pre-invasive or invasive disease remain. Further excision carries risk of obstetric morbidity and cervical stenosis. The aim was to establish the proportion of women with residual pre-invasive and invasive disease in order to determine the value of our approach.

Methods:

A retrospective review was undertaken of patients treated for FIGO 1a1 cervical cancer within the trust over 15 years. The West Midlands Colposcopy database was used to collect data on initial histology at diagnosis and subsequent follow up with histology and outcomes.

Results:

Over 100 patients (mean age 36 years, Range 23-62) were treated for cervical cancer stage FIGO 1a1 within the trust between 2003 and 2017. All patients had a loop excision demonstrating FIGO 1a1 squamous cell carcinoma. Approximately two thirds had residual disease or CIN at resection margins. The majority of these patients had a repeat loop excision with a minority proceeding directly to hysterectomy. The majority of repeat loop excisions were free from disease. There were successful pregnancies carried to term following two or more loop excisions.

Conclusion:

Following complete excision of stage 1a1 cervical cancer, the risk of residual pre-invasive and invasive disease is minimal, even if the initial margins are positive for pre-invasive disease. The role of repeat excision in these cases is therefore unclear and of questionable value. We will present more complete data with a view to identifying risk factors for residual disease and discuss alternative strategies for management.

O-9 EXPLORATION OF CERVICAL CANCER AND CIN CELL MODELS FOR USE IN TRANSLATIONAL RESEARCH

Rachel O'Donnell[1,2], Lucy Gentles[2], Ioannis Kotsopoulos[2,3], Stuart Rundle, Jacob Begbie[2], Callum Kirk[2], Raj Naik[1], Ann Fisher[1], Yvette Drew[2], Ali Kucukmetin[1], Nicola Curtin[2]

[1]Northern Gynaecological Oncology Centre (NGOC), United Kingdom, [2]Northern Institute for Cancer Research (NICR), Newcastle University, United Kingdom, [3]University College London, United Kingdom

Background

PARP inhibitors are used selectively to treat cancers with specific defects in DNA damage repair (DDR). Preclinical and translational research is needed to generate companion diagnostics for predicting response to emerging therapies according to tumour biology. Cellular models are lacking in cervical cancer.

Aims

(1) Assess feasibility of primary live culture from cervical cancer patients

(2) Characterise commercially available cell lines

(3) Assess feasibility of (a) functional assays of the DDR, (b) cytotoxicity assays using cisplatin, PARPi and irradiation, as monotherapies and in combinations.

(4) Determine utility of FFPE samples of cervical cancer and CIN for genomic and protein DDR assays.

Methods

Fresh solid tumour, malignant ascites and FFPE biopsies of cervical cancer or CIN were collected (REC/12/NE/0395). Viable primary cultures and commercial cell lines were characterised for DDR function using immunofluorescent-based assays. Sensitivity to platinum, PARPi, and irradiation were assessed using colony formation assays. Tissue microarrays were generated from FFPE tissues and immunohistochemistry (IHC) undertaken to quantify key DDR protein expression.

Results

Primary culture from cervical biopsies is restricted by tissue necrosis and infection. Primary culture from malignant ascites in advanced disease is feasible and can be used in functional DDR and cytotoxicity assays. DDR dysfunction is variable in commercial cell lines and can be correlated with sensitivity to PARPi and platinum agents. IHC is a reliable and reproducible way to quantify downstream components of DDR in cervical cancer and CIN.

Conclusions

Cervical cancer primary cultures are feasible but heavily resource and time dependent. They have a limited life span. Commercial cell lines can be used for proof of concept. Biomarker assays that can be used in the clinical setting are likely to be limited to IHC techniques and future work aims to validate DDR IHC signatures for use in early phase trials of PARPi in cervical cancer.

Funded by the Jordan Singer Research Fund, BSCCP and the NCCRS

O-10 IMPACT OF THE IMPLEMENTATION OF HUMAN PAPILLOMAVIRUS TRIAGE (HPVt) ON BORDERLINE AND LOW-GRADE COLPOSCOPY REFERRALS: REVIEW OF KC65 DATA APRIL 2007 TO MARCH 2017 IN THE NORTH OF ENGLAND

Emma Johnson, Uma Krishnamoorthy, Helen Lewis-Parmar, Harry Sowden

Public Health England, United Kingdom

Objective

Year 1 of human papillomavirus triage (HPVt) protocol was fully implemented in the North of England in April 2012. This study analyses the impact of HPVt in borderline and low-grade cytology referrals on colposcopy attendance rates and punch biopsy rates in the NHS Cervical Screening Programme (NHSCSP).

Method

Retrospective analysis of quality assurance held statutory KC65 data. The analysis looked at data on borderline and low-grade colposcopy attendances 5 years' pre and post HPVt implementation (April 2007 to March 2017).

Results

There was no significant change in the punch biopsy rate at first visit (p=0.770777) or at follow up (p=0.848916) in the North of England following the implementation of HPVt. At a provider level, there was a large variation in practice of punch biopsy at first visit (in 2016-17 this ranged from 6.38% to 95.56%).

» In 2011/12 (pre-HPVt), there were 28,469 follow up attendances for borderline and low-grades and by 2016/17 this had reduced to 16,179 (reduction of 43%), despite an increase in referrals. Comparison of first attendance data to all attendance data, shows that the attendance rate for borderline and low-grade referrals has reduced from 2.7 attendances per patient to 1.8 attendances per patient.

Conclusion

From the regional level data, implementation of the HPVt protocol does not appear to have altered punch biopsy rates on borderline and low-grade patients in the North of England. There is a large variation in punch biopsy rates at first visit across the region.

HPVt implementation has led to a large reduction in the number of follow up visits for borderline and low-grade referrals. This as expected within the revised NHSCSP pathway, where:

» women with normal colposcopies are returned to routine recall
» women with biopsy proven CIN1 may be discharged to the community for 12 month cytology for conservative management

O-11 MANAGEMENT OF POST-MENOPAUSAL WOMEN WITH UNSATISFACTORY COLPOSCOPY, REFERRED WITH HIGH RISK HPV POSITIVE NORMAL OR LOW GRADE DYSKARYOTIC SMEAR - A SURVEY AMONGST ALL BSCCP REGISTERED COLPOSCOPISTS

Annabel Stout[1], Joanne Underhill[2], Susnata China[3]

[1]*Sandwell and West Birmingham Hospitals NHS Trust, United Kingdom,* [2]*Worcestershire Acute Hospitals NHS Trust, United Kingdom,* [3]*Cheltenham General Hospital, Gloucestershire Hospitals NHS Foundation Trust, UK*

Introduction

At present there is no national consensus or guidance regarding management of post-menopausal women with abnormal cytology (including high risk HPV with normal, borderline squamous or mild dyskaryosis) and unsatisfactory colposcopy. The practice amongst colposcopists in the UK is variable.

Aims

Our survey aims to evaluate current management of these women by BSCCP registered colposcopists with a view of formulating a consensus opinion.

Methods

Online questionnaire survey amongst BSCCP registered colposcopists, circulated by BSCCP using survey monkey from 15/01/18 to 09/02/18. Data were collected from the responses received.

Results

Both nurse and medical colposcopists with a range of experience participated. The majority of respondents had been practising for more than 5 years and saw more than 100 patients with abnormal cytology each year.

There was a high degree of variability in management strategies employed at presentation and follow up.

The majority of respondents would discuss such patients at MDT meeting, however a proportion of colposcopists did not feel this to be necessary.

Use of topical oestrogen therapy was common amongst respondents, however indication of patient selection for use varied considerably.

Comments made in the free text section indicate an impression that the number of patients in this group are likely increase over time. This makes the findings of this survey all the more relevant. Need for individualised discussion with each patient was emphasised, along with involvement of senior colleagues or MDT opinion. A significant number of colposcopists thought that it difficult to manage this group of patients.

CONCLUSION

Our survey results show wide variation in the management of above patient group. A number of the colposcopists have preferred individualised management plans, however these strategies have shown significant disparity. The survey results re-emphasises the need for a larger study regarding this patient group and need for a relevant guidance.

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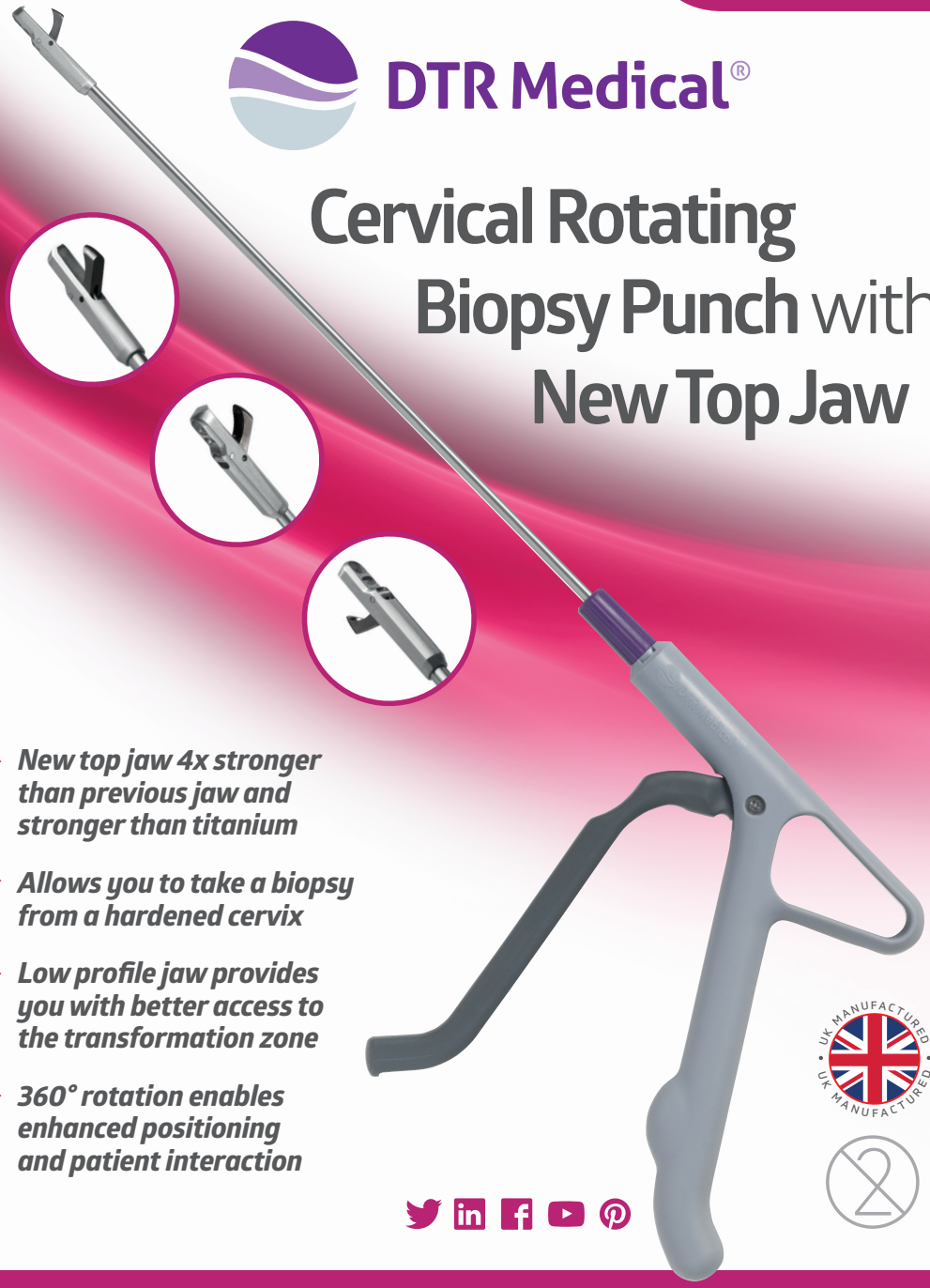

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P-1 SURGICAL SMOKE - WHAT ARE THE RISKS TO THE COLPOSCOPIST? A REVIEW AND STAFF SURVEY

Susan Addley, **Declan Quinn**

Antrim Area Hospital, United Kingdom

The use of diathermy in everyday colposcopy practice generates surgical smoke. 95% of surgical smoke is water and 5% is a combination of chemicals and cellular debris. The chemical load derived from the cautery of one gram of tissue is comparable to that derived from six cigarettes. HIV and HPV viral DNA have been isolated, and both Staphylococcus and Neisseria cultured from surgical smoke. Smoke particles diffuse along concentration gradients within the colposcopy suite exposing all staff, and not just the lead colposcopist. Surgical smoke particles remain airborne and are inhalable; the smallest fractions entering the alveoli. Animal studies have demonstrated pulmonary congestion, interstitial pneumonia and emphysema secondary to surgical smoke exposure. Despite such risks, risk-reduction measures – such as ensuring adequate room ventilation, respirators or the use of portable evacuation devices – are rarely incorporated into everyday colposcopy practice. A questionnaire was designed to evaluate the knowledge of gynae staff about the risks of surgical smoke exposure. The response rate was >75%. 61% of staff were aware that surgical smoke could potentially contain water, chemicals, bacteria and viruses; whilst 11% were unsure of its components. Whilst the majority of respondents (98%) felt the lead operator was likely at risk, only 78% of staff were concerned about the potential risks of surgical smoke exposure to other staff present in the same room. 35% of staff incorrectly believed that a standard facemask was protective. Only 63% respectively were aware of the availability of portable evacuation devices as a risk reduction measure within their unit. 76% deemed current risk reduction inadequate. Whilst 2% believed smoke exposure caused no symptoms, 59% of respondents reported experiencing symptoms which they attributed to smoke exposure – most commonly headache (28%). 74% had multiple symptoms and 4% had had associated sickness absence.

P-2 MANAGEMENT OF POST COITAL BLEEDING

Deniz AL-Hirmizy, Jaya Bhardwaj, Mahadeva Manohar

Diana Princess of Wales Hospital, United Kingdom

Aim:

Improve management of patients referred with a history of Post Coital Bleeding (PCB)

Background:

Post coital bleeding is a common cause of referral to gynaecology and colposcopy clinic. Criteria for referral to minor surgery clinic which is staffed with accredited colposcopist; Age 35or less and had a cervical cytology within 3 years or patient under the age of 25 and clinical examination suggestive of ectropion.

Methods:

A total of 50 cases notes were selected randomly over a period of 1 year from November 2016-November 2017 using our colposcopy and minor surgery clinic database.

Results:

The mean age of referral was 35 years, range (16-61), 34% of the patients were >40 years.

66% of the women had symptoms for > 4 weeks. 90% of the women were seen within 4 weeks duration from the referral. Most of the patients were referred from GOPD (62%) and rest from GPs (38%). 64% of women were noted to have ectropion on colposcopy. Normal cervix was found in 16%, benign lesions (HPV, polyp), CIN 1 was noted in 10% cases. Only 1 case was found to have CIN2.

80% of the cases had previous normal cervical cytology, in 18% cervical cytology was not done (age< 25). In more than 70% of women who were screened for infection by swabs, results were normal. Almost 40% of women used some form of hormonal contraceptive.

All patients referred to colposcopy clinic had a biopsy and reappointed for treatment if required when histology available. No patient diagnosed with cancer in this series. No patient referred to minor surgery clinic had high grade CIN or malignancy

Conclusions:

We are meeting the standard criteria for referral time frame. However, we can potentially reduce the number of referrals to colposcopy clinic by appropriately referring patient to minor surgery clinic.

P-3 CYTOLOGY AND COLPOSCOPY PREDICTION OF HIGH GRADE CERVICAL INTRAEPITHELIAL NEOPLASIA

Mohamed Elmoursi, **Ibrahim Alsharaydeh**

Raigmore Hospital, NHS Highland, United Kingdom

Background:

Cervical cancer is the still the most common gynaecological cancer in many low and middle-income countries worldwide. Hence, cervical cancer screening is offered to women to identify and treat cervical intraepithelial neoplasia. The effectiveness of cytology and colposcopic impression in the prediction of high grade pathology is crucial for prevention of cervical cancer.

Objective:

To estimate the accuracy of cytological smear and colposcopic impression to predict the final histopathology results.

Methods:

Retrospective analysis of the histological results of the LLETZ procedures performed in our hospital over period of 6 months. Colposcopic examinations were performed and excision specimens obtained from abnormal colposcopic sites for all patients. We identified 82 LLETZ procedures performed under local anaesthetics. The criterion standard of test accuracy was the histological report of LLETZ specimen. We calculated the predictive values, sensitivities, specificities, and the correlations between the cytological smear and colposcopic impression with the final histology.

Results:

The sensitivity and specificity estimates for the high-grade colposcopic impression and CIN2/CIN3 was 69% and 75% respectively, with a Positive predictive value (PPV) of 87% with a higher Likelihood Ratio of 11.2 to have a higher grade CIN pathology with a high grade colposcopy impression (Fisher's Exact Test, p= 0.01). Likewise, the high grade cytological smear when compared to the high grade pathology showed a sensitivity and specificity of 54 % and 91% respectively and a PPV of 90% and a 20 times likelihood ratio to having a high grade pathology (Fisher's Exact Test, p< 0.0001) and only just less than 5 times likelihood ratio to have a high grade colposcopic impression.

Conclusion:

Cytology and Colposcopy together are very useful synergistic tools to predict high grade CIN on pathology. However, to avoid over treatment, punch biopsies to aid in the diagnosis before treatment should always considered especially in young women.

P-4 CERVICAL SCREENING REVIEW DISCLOSURE AUDIT

Mamatha Banavathi, **Magdy El-Khanagry**

Burton Hospital NHS Foundation Trust, United Kingdom

Cervical cancer is the 11th most common cancer among women in the UK, and the most common cancer in women under 35.

Our Trust policy stipulates that patients diagnosed with cervical cancer should be offered the option of receiving the results of re-examination of all the previous cervical screen smears held within the Trust. This cervical screening review is routinely carried out in our Trust as part of the multi-disciplinary team discussion of the case. During initial consultation consent for disclosing the cervical screening review results should be offered to all patients. After the review a reporting letter should be written to patients who wish to have the results.

A re-audit was performed to assess improvements following implementation of measures after the initial audit in 2014 to monitor the effectiveness of the cervical screening programme. The Trust policy provides a clear and consistent process by which all newly diagnosed cases of invasive cervical cancer are audited, and the results disclosed to the patient, should she wish to know the outcome of that audit.

Patients diagnosed with cervical were included and data was collected retrospectively from case notes and HISS & V6 computer data base for the period Oct 2014 to Sept 2016.

There are no national standards but arbitrary standards were set at 100% for sending the consent forms and reply.

In the re-audit period 33 patients diagnosed with cervical cancer were included. Of these patients 95% received the audit consent form and 84.2% received the audit results. The results of the re-audit show a statistically significant improvement for both patients receiving consent form (p value 0.02) and audit results (p value 0.005) since the initial audit.

P-5 AUDIT OF BORDERLINE ENDOCERVICAL SMEARS

Liam Beamer, Jaya Kovvali, Jane Brookes, **David Semple**

Countess of Chester Hospital NHS Foundation Trust, United Kingdom

The current recommendation for women with a smear showing borderline nuclear change in endocervical cells and are positive for HPV is colposcopy. Research suggests that 10 to 30% of these women will have high grade CIN and only ten % intraepithelial glandular lesions. Radical excision of the endocervix is not recommended but no formal management is recommended.

Method

A retrospective audit of women referred to colposcopy between April 2012 to April 2016 with a borderline endocervical smear. There were only 22 patients which was less than 1% of the total number of smear referrals. All women with high grade changes or unsatisfactory colposcopy examination underwent a loop excision. Of these 7 women, 3 had CIN 2/3 or CGIN and 4 had normal histology or CIN1. Management varied between colposcopists when examination findings were normal or low grade. Eight women underwent loop excision and seven conservative management. Of the patients undergoing loop excision histology ranged from normal to high grade CGIN. The management of women undergoing conservative management varied from colposcopy and smear at 6 months, repeat smear at 12 months and loop at 6 months due to persistent abnormality on smear. Of the 16 women who underwent a loop, 6 had high grade CIN and 3 had high grade CGIN.

Recommendations

All women referred with a borderline endocervical smear should be considered for loop excision unless nulliparous or actively trying for a pregnancy with appropriate patient information. Conservative management should be standardised to repeat colposcopy and smear in 6 months.

Actions

New guidance to be implemented locally with dissemination of audit findings. Reaudit in 2 years.

P-6 COLPOSCOPY REFERRALS FOR POST-COITAL BLEEDING AT UNIVERSITY HOSPITALS OF LEICESTER

Aemn Ismail, Arta Spridzane, **Asok Banerjee**

University Hospitals of Leicester NHS Trust, United Kingdom

Background

Postcoital bleeding (PCB) is an alarming symptom of cervical cancer in women; but with negative cervical cytology most will have benign pathology. PCB and / or inter-menstrual bleeding have a risk of having cervical cancer is rare under the age of 25 year. The risk increases to 1 in 2400 at 45-54 years. Increasing referral to colposcopy for PCB from primary care may have significant impact on limited colposcopy clinic resources.

Aim is to evaluate the management in primary care and outcome of colposcopy referral for PCB.

Methods

A retrospective audit between January and March 2017 and available Data of 60 women were analysed using Microsoft excel.

Results

The mean age of audit cohort was 30.66 (range 19-59 yrs.). In 80% of cases the cervix appeared non-pathological. Most of the referral (88%) was from primary care (GP) including 4 as 2 weeks referral. Infection screening and pelvic examination were carried out in primary care in 75% and 82% respectively. Of 19 Colposcopy guided biopsy, CIN lesions were confirmed in 13% (8) of cases. Total 92% of the women were discharged from the colposcopy clinic.

Discussion

NHS clinical practice guidance suggested to perform a pelvic examination and to exclude chlamydia infection as minimum in the primary care under 25 years with abnormal vaginal bleeding

From the above results we suggest that primary care practitioners should follow NHSCSP recommended referral pathway for PCB. The audit noted that urgent (2 weeks) referral to colposcopy were made where post LLETZ cervix appeared suspicious due to irregular appearance. Primary care practitioners responsible for cervical screening along with hospital junior doctors should have the opportunity to attend colposcopy clinic and / or a BSCCP approved Basic Colposcopy Course to improve quality of urgent referrals for colposcopy and to reduce patient's anxiety

P-7 CONSENT PRIOR TO LOOP EXCISION IN COLPOSCOPY CLINIC

Liam Beamer, Jaya Kovvali, Jane Brookes, **David Semple**

Countess of Chester Hospital NHS Foundation Trust, United Kingdom

Informed consent is essential prior to any invasive procedure in an outpatient setting (NatSSIPS) such as colposcopy, especially in light of the Montgomery ruling. An audit two years ago in our unit revealed that all patients undergoing loop excision in theatre had a full written consent taken but only verbal consent was taken for those women undergoing loop under local anaesthesia by a tick box on our colposcopy database. A new procedure specific consent form was designed for all patients undergoing loop excision whether under general or local anaesthesia to standardise information given particularly in relation to loop excision and potential effect on future pregnancy.

Method

A retrospective audit of all loop excisions undertaken during the first 6 months of 2017 was undertaken. General anaesthesia was used in 17% of cases and all these women had formal written consent taken. However it was disappointing to find that despite the introduction of a new consent form less than 10% of patients having a loop excision in clinic had evidence of formal written consent being taken. This may be due to

» pressure of time when taking written consent
» consent forms being given to the patient to take away with them
» consent forms being lost and therefore not scanned into the electronic case records

Recommendations

All patients undergoing loop excision must have full written consent taken using the procedure specific consent form.

Actions

Using QI methodology re-educate all members of the colposcopy team on the importance of fully informed consent using the procedure specific consent form.

P-8 TEST OF CURE - CAN WE TRUST IT? AUDIT OF OUTCOMES FOR PATIENTS HAVING LLETZ IN HULL AND EAST YORKSHIRE COLPOSCOPY SERVICE

Sarah Bolton, Susanne Jane Booth

Hull and East Yorkshire NHS Trust, United Kingdom

Introduction:

The use of HPV for test of Cure (TOC) was introduced in the UK in 2012-13. This was a marked change from the traditional policy of colposcopy follow up for treated CIN. It also required clinicians to have greater faith in the 'call recall' systems in place. With this in mind, we carried out an audit of outcomes for patients undergoing Large Loop Excisions of the Transformation Zone (LLETZ) in our own Colposcopy service.

Methods:

We prospectively collected the data for patients undergoing a LLETZ in our Nurse Colposcopy clinic from November 2016 to June 2017. A number of outcomes were examined, including time from LLETZ to TOC cytology and result of TOC cytology.

Results:

In total, there were 116 patients who had LLETZ in the 7 month period.

- Only 10 patients (8%) had no TOC cytology. Seven had DNA'd their appointment and 3 had moved from the area.
- 85 patients (73%) had negative cytology HPV negative.
- 13 patients (11.2%) had Negative cytology HPV positive.
- 5 (4.3%) patients had Mild dyskaryosis HPV positive.
- 1 patient had severe dyskaryosis.
- 1 patient had passed away from other causes.

Conclusion:

As clinicians we may find it difficult to change our practice, especially when the change is something so great. Prior to the introduction of HPV for TOC, a woman with treated CIN 3 would have annual cytology for 10 years.

Our own audit gives some reassurance that our population is largely compliant with attending for their TOC smears. This is of particular importance given the fact that Hull has higher levels of deprivation compared to the rest of England. In addition, the age-standardised incidence rate of cervical cancer in our population is 10.7 compared to a national average of 8.7 for England. This is the second highest in the country.

P-9 SEXUAL AND REPRODUCTIVE HEALTH SERVICES AND THEIR FUNDAMENTAL ROLE IN CERVICAL SCREENING

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Homerton Sexual Health Service, Homerton University Hospital NHS Trust, United Kingdom

Background:

Cervical screening coverage rates are at their lowest in 20 years with barriers to access considered a major cause. Sexual health services have traditionally offered cervical screening but presently are not commissioned to deliver this service. Provision of open access cervical screening became unsustainable for the Homerton Sexual Health Service in 2016. A policy decision to significantly limit access resulted in opportunistic tests only being offered from 2017. We present an audit of cervical screening uptake before and after this change in policy.

Methods:

A retrospective audit was carried out using online electronic records of women attending a walk-in sexual health service providing integrated sexual and reproductive healthcare. Cervical screening attendances and cytological results were recorded for a six-month period in 2016 and compared with the same six months in 2017. All episodes of women attending for cervical smear tests or where a smear test was performed as part of the consultation were included.

Results:

Between April 1st and September 30th 2016, cervical cytology was undertaken in 1470 women. This compared to 328 women in the same period of 2017, a fall in activity of 78%. Abnormal cytology requiring colposcopy referral was found in 115 (7.8%) women in the pre-policy change group compared to 21 (6.4%) in the post-policy change group. Of those with abnormal cytology, 14 women had high-grade changes in the 2016 review period, compared to 2 women detected in the 2017 period.

Conclusion:

Removing our open access policy to cervical screening resulted in significantly lower numbers of women attending for smear tests. Based on current statistics published by NHS Digital it seems unlikely that women are accessing in large numbers cervical screening elsewhere. The sexual health service has a significant role in maintaining access to cervical screening, improving coverage and preventing the widening of inequalities.

P-10 POSSIBILITY OF CONSERVATIVE MANAGEMENT IN YOUNG PATIENTS WITH SMALL AREA OF CIN WITH BIOPSY

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Nearly 400 patients over a period of three years had LLETZ procedure done abnormal smears. Out of them LLETZ 27 (6.75%) had negative results.

There is a great association with younger age group between 25-40 years 55.56%.

Out of 15 low grade, 86% were small area of low grade CIN on colposcopy. 86% were under 40 yrs age group.

All of them had biopsy taken which confirmed CIN1 or 2 or 3. Multidisciplinary meeting was held for all cases and finding were confirmed.

Post treatment test of cure had done, 80% had gone back on to regular smears.

Conclusion:

In young low grade or borderline smears with small area of low grade CIN, consider avoiding the LLETZ and manage conservatively.

P-11 CERVICAL SCREENING IN PHARMACOLOGICALLY IMMUNOSUPPRESSED WOMEN; IS ROUTINE SCREENING APPROPRIATE?

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Background:

NHS cervical screening guidance recognises that women with immunosuppression benefit from increased surveillance and additional cervical cytology. This is due to their increased risk of developing cervical intra-epithelial neoplasia (CIN) and cervical cancer. Current recommendations do not account for specific categories such as inflammatory bowel disease, rheumatological conditions or women post organ transplantation. Homerton Anal Neoplasia Service (HANS) London, a tertiary referral centre, sees a number of immunosuppressed women with ano-genital neoplasia. An audit undertaken within our service has reviewed the cervical screening history and burden of cervical disease in women with pharmacological immunosuppression.

Methods:

A retrospective audit was conducted by reviewing our database and recording all women with documented pharmacological immunosuppression. Women seen within the service between 2012 and 2017 were included. Patient demographics, cervical screening histories and the presence of previous cervical treatment were extracted from patient case notes. The Open-Exeter database for cervical screening was cross checked for the presence of abnormal cervical cytology prior to being seen.

Results:

34 women with evidence of pharmacological immunosuppression and historical cervical screening records were included. 24 (71%) women had a previous history of abnormal cytology (10 low-grade, 14 high-grade). Evidence of previous cervical treatment was documented in 14 (41%) women, the median number and range of treatments per women being 1(1-6). Of the women with previous high-grade cervical abnormalities, 9/14 (71%) had immunosuppression from causes other than organ transplantation.

Conclusion:

Results revealed the majority of immunosuppressed women had a previous history of abnormal cervical cytology, with over 40% undergoing previous treatment. A number of conditions apart from organ transplantation were responsible for their immunocompromise. Our data corroborates recent publications suggesting that all categories of immunosuppression justify closer cervical screening and referral to a specialist centre for ongoing care.

P-12 NON-SCREENING REFERRALS TO COLPOSCOPY – DO THESE WOMEN HAVE CIN OR CERVICAL CANCER?

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Queen's Hospital, United Kingdom

Introduction

Women may present with symptoms of cervical cancer such as post-coital bleeding and vaginal discharge. If common causes have been excluded (infection, ectropion, problems related to contraceptive pills) then referral to a gynaecologist may be indicated and colposcopy may be requested. However, over the last 2 years we have seen a significant increase in non-screening related referrals to colposcopy.

Aim

To audit all non-screening referrals to colposcopy over a three-month period, at Queen's hospital, London; a busy east London district hospital, to see if cervical precancer or cancer was diagnosed and treated.

Methods

Data was extracted from the CYRES database, Infoflex (colposcopy data input database) and patient records to establish reason for referral, source of referral and outcome, for all non-screening referrals to colposcopy from 1st October to the 31st December 2017.

Results

Of the 185 non-screening referrals, representing 38% of all new referrals to colposcopy, 26 cases were excluded from the audit as they were identified as being a screening related referral.

The indications for referrals were, to perform a smear test (n=58), abnormal bleeding (n=51), cervical polyp (n=18), suspicious cervix (n=18). Of the 159 cases, only 1 woman was found to have an abnormality. She presented with vaginal discharge and her smear test was due. The smear showed borderline glandular cells with a normal colposcopy. The other 158 women had a normal colposcopy. Abnormality was found in 0.6% of all non-screening related referrals.

Conclusions

There appears to be a very small risk of detecting a significant cervical abnormality in women referred to colposcopy with non-screening related reasons. We propose initiating a 'cervical health' clinic for symptomatic women to relieve pressure on colposcopy and increase capacity for the predicted rise in screening referrals after implementation of HPV Primary Screening.

P-13 LLETZ- ARE WE FOLLOWING THE GUIDELINES?

Sonia Chachan, Karen Cheung

Stepping Hill Hospital, United Kingdom

Retrospective audit of all LLETZ procedures carried out in last 6 months, audit carried out to check indication, see and treat procedures, local vs general anaesthetic, depth of excision and test of cure outcomes.

P-14 AUDIT OF LARGE LOOP EXCISIONS UNDER GENERAL ANAESTHESIA

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Royal Berkshire Hospital NHS Foundation Trust, United Kingdom

NHSCSP colposcopy guidelines recommend that at least 80% of LLETZ procedures should be performed in outpatient clinics under local anaesthesia (LA).

Objectives of this audit

1. To determine if local practice complies with national standards
2. To determine the clinical indications for performing LLETZ under general anaesthesia (GA)
3. To determine the positive predictive value of colposcopy in this cohort of women

Audit standards

1. At least 80% of LLETZ procedures should be performed in outpatient clinic
2. Clinical indications should be appropriate in 100% of women
3. The positive predictive value of colposcopic diagnosis should be at least 65%

Methodology

Retrospective review of all LLEZT procedures performed under GA between 1st April 2016 and 31st March 2017

Results

1. 48/473 (10.1%) of all LLETZ procedures were performed under GA
2. Clinical indications were appropriate in 100% of women
3. The positive predictive value of a colposcopic diagnosis was 71%

Conclusion and recommendations

1. All standards were met and the service performed above expectations in two of the standards
2. The colposcopy team at the RBNHSFT deserve to be congratulated for providing an excellent service and no areas for improvement were identified

P-15 Management of smears reported as glandular neoplasia

Sonia Chachan, Sarah Hibbert

Stepping Hill Hospital, United Kingdom

Recent guidelines have changed regarding management of glandular abnormalities on smear. an audit of all cases in last 3 years to see change in practice and adherence to guidelines.

P-16 BORDERLINE CHANGE IN ENDOCERVICAL CELLS AND ?GLANDULAR NEOPLASIA OF ENDOCERVICAL TYPE. A CROSS-CITY RETROSPECTIVE AUDIT OF MANAGEMENT AND OUTCOMES IN A HPV PRIMARY SCREENING PILOT AREA

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[1]North Bristol NHS Trust, United Kingdom, [2]University Hospital Bristol Trust, United Kingdom

Background

Minimal data exists on the optimal investigation and management of Endocervical abnormalities detected by cervical screening. It was noted in Bristol Colposcopy Meetings that increasing rates of glandular abnormalities were being identified and treated.

Methodology

Retrospective audit using the CISS patient information system from July 2014-July 2016 at North Bristol Trust and University Hospital Bristol Trust. All cases with referral cytology of HPV positivity with either Borderline Change in Endocervical Cells or ?Glandular Neoplasia of Endocervical Type included. Data collected included immediate colposcopic opinion and management, histology and follow up cytology and histology at 12 months.

Results

60 women were referred with Borderline Endocervical Change and HPV. Histology demonstrated 5% cervical cancer, 25% high-grade CIN, 5% high-grade CGIN, 8% high-grade CIN+CGIN and 2% other site high-grade disease or cancer. In total 45% had at least high-grade disease requiring treatment and a further 5% needed treatment at 12 months.

61 women were referred with HPV positivity and ?Glandular Neoplasia. Outcomes included 26% cervical cancer, 3% cancer from another site, 11% high-grade CIN, 31% high-grade CGIN and 23% high-grade CIN+CGIN. In total 95% of women had at least high-grade disease requiring treatment.

Conclusion

National data demonstrate that women with ?Glandular Neoplasia of Endocervical Type have a high risk of malignant or premalignant changes however the Positive Predictive Value ranges from 17% to 96%. The NHS Cervical Screening Programme advocates management by excision biopsy and our data supports this.

Our results demonstrate a larger percentage of patients requiring treatment for high-grade pathology in the Borderline Change group than is suggested in national data. We propose that Borderline Change in Endocervical Cells should be advanced from a 6 week referral target to a 2 week target with a low threshold to offer ‘see and treat’ excisional biopsy in this setting.

P-17 cGIN - AUDIT: DIAGNOSIS AND MANAGEMENT IN OUR UNIT IN 2016

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Introduction

The incidence of malignant and premalignant endocervical glandular lesions is increasing. The positive predictive value of a report of ?glandular disease for cervical cancer is 12.4% (Landy et al, Cytopathology 2016). About 80 % of ?glandular disease reported smears have significant changes in histology. Therefore good diagnostic pathways for ?glandular disease in smear tests and their consequent management in colposcopy units is of utmost importance.

Objectives

We wanted to review our diagnostic pathways, followed by the management of women referred with abnormal smears reported as 'glandular neoplasia'. We wanted to assess the correlation of cytological and histological diagnosis and the outcomes after referral to colposcopy.

Methodology

A retrospective audit of all cases with ?glandular disease in smear test in 2016 in our unit.

Results

21 cases of ?glandular disease in smear tests were referred. All cases underwent colposcopy which showed evidence of high grade disease in 42%. All patients had an excisional treatment, 19 in form of extended LLETZ.

The PPV of ?glandular smear for significant pathology in the histology was 71%.

The average depth of specimen was 17mm in women <45 years and 14mm in women >45 years. The margins were clear in 75%. 4 out of the 19 patients with extended LLETZ showed high grade glandular disease in the histology of the top hat.

20 cases were discussed in our MDT. The first TOC was positive in 3 cases.

Conclusion

The BSCCP standards have been met.

Regarding correlation between cytology and histology we had a lower PPV than shown in research previously.

The histology results and the wide range of specimen size especially with larger specimens in the younger patients and the possible consequences of this lead us to the conclusion that surgical treatment needs to be further individualized especially for women in child bearing age.

P-18 COLPOSCOPY INFORMATION LEAFLET WITH IMAGES; IS IT MORE EFFECTIVE IN PATIENT'S EDUCATION AND ENGAGEMENT THAN WITHOUT IMAGES?

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Objective:

To assess effectiveness of adding images and sketches in our Colposcopy information new leaflet for LLETZ (Large Loop Excision of Transformation Zone) to educate and improve patient's knowledge to help reducing their anxiety levels and developing their confidence; consequently reducing clinic defaults.

Design:

Survey study (prospective, mixed qualitative/quantitative, involves a survey questionnaire).

Setting:

Colposcopy clinic of a large district hospital (St Helen's Hospital).

Sample:

50 Patients (adult women, 25-64 years) attending with abnormal smears, coming first time to Colposcopy clinic for LLETZ. It is also called Loop treatment, means to remove abnormal area from cervix by loop diathermy.

Inclusion criteria and Exclusion criteria: All women with smear results of moderate to severe dyskaryosis (abnormal cells) were sent an invitation letter with new leaflet containing images and a questionnaire. Those who had smears results of mild grade dyskaryosis or any other problem not needed Loop treatment were not included in our study.

Main outcome measures: Improving knowledge of Colposcopy LLETZ treatment and reduction in anxiety levels. Data Analysis was based on Mixed Quantitative & Qualitative Methods.

Results:

25% response rate observed in our survey. Majority of patients got information from our leaflet. All 100% felt leaflet was helpful, majority felt it had right quantity of information. 92% gave attention to images and found them helpful but 6% found images were not helpful. Majority of patient (78%) mentioned that there was right amount of images and 96% were satisfied with them. About 80% felt relief in their anxiety levels after reading the leaflet.

Conclusion:

Our new leaflet with diagrams & images was found helpful to almost all women. Majority felt reassured, less anxious when they had knowledge about LLETZ treatment. Comments and suggestions indicated that women were more engaged with their quality of clinical management and in the service provision.

P-19 TEACHING OLD DOGS NEW TRICKS! - FOLLOW UP OF PATIENTS AFTER NORMAL COLPOSCOPY WITH MILD OR BORDERLINE SMEARS

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Antrim Area Hospital, United Kingdom

Background

Northern ireland introduced HR-HPV testing into the cervical screening programme in 2013. All smears reported as borderline nuclear abnormalities (BNA) and mild dyskaryosis were tested for HR-HPV.

Using both the regional laboratory database and the cervical screening software (CYRES) a download was obtained that gave the Healthcare number of women who had a BNA and mild dyskaryotic report and who had attended colposcopy with a resultant report of no abnormality detected. Then following these patients' histories to determine on their subsequent smear if any further abnormality was detected. The first 100 cases in each year 2013 2014 and 2015 were tabulated.

Results

When introduced in 2013, we can demonstrate from our data that the colposcopy guidelines were not adhered too with the majority of women having a further smear test including HPV test and/or a biopsy.

In 2014 and 2015 this has changed with the women in this category having no abnormality detected at colposcopy being returned to Routine Recall.

Within this category and with the evidence of further follow up only one case is documented of a HG smear. (0.06%)

Where additional smears or punch biopsies were taken at colposcopy, of these just three had a high grade abnormality on follow up smear or biopsy (3.6%)

Conclusion

Since the introduction of the new HPV testing guidance in 2013, our guidelines are becoming more adhered too. We can demonstrate a significant improvement year on year in adherence to the guidelines and the difficulties in implementing new ideas. This will have massive implications for the onset of primary HPV screening. There is also little risk returning the women to routine recall following normal colposcopy if no abnormality is detected.

P-20 EVALUATION OF QUALITY ASSURANCE VISITS TO CERVICAL CANCER SCREENING SERVICES IN THE NORTH OF ENGLAND

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Screening services identify apparently healthy people who may be at increased risk of a disease or condition, enabling earlier treatment or better informed decisions. Public Health England's Screening Quality Assurance Service (SQAS) ensures programmes are safe and effective by checking that national standards are met. This quality assurance process includes peer review visits to screening providers.

This work pilots an online survey to 14 cervical screening services in the North of England who received peer review visits by the SQAS between 1st April 2016 and 31st March 2017. It considers feedback from screening providers about the quality assurance visit planning, process and follow-up.

The online survey was found to be a useful tool to get provider feedback about the visit. All providers and professional groups were represented in the responses with an overall response rate by individual of 49% and a provider response rate of 100%. The majority of respondents rated the visit as excellent or good with one respondent giving a neutral response. All respondents felt that they were given adequate opportunities to express their views, as well as discuss all issues facing their service during the visit. Areas of improvement identified included changes to the online questionnaire, consistency in visit notification period and modification of visit documentation. An analysis of progress on the recommendations from the visit was also undertaken. Recommendations ranged from concerns that needed to be addressed immediately (e.g., regarding patient safety) to more intermediate and longer term changes (e.g., improved administration). Findings from this work will be shared with screening quality assurance service regionally and nationally to improve operational processes in screening quality assurance and improve the experience of screening service providers.

P-21 COLPOSCOPY REFERRALS TO WOMEN OVER THE AGE OF 60 AT ABERDEEN ROYAL INFIRMARY FOLLOWING NEW AGE RANGE INTRODUCTION IN SCOTLAND: AN ANALYSIS FROM JUNE 2016 TILL JUNE 2017

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Background:

Following the introduction of Change to Age Range And Frequency (CARAF) in Scotland in June 2016; we looked into the colposcopy referrals in women over the age 60 for one year period at Aberdeen Royal Infirmary to evaluate if there was an increase in referrals to colposcopy and smear clinic.

Methods:

A retrospective review of women from June 2016 – June 2017 was made. Referrals were identified from the Colposcopy clinic book and smear clinic book. Data were collected from NCCIAS and entered onto excel for analysis. The parameters that were looked into comprised of: Indications for referral, Colposcopic examination findings, management of inadequate colposcopic features and final histology results.

Results:

A total of 81 women were identified in this time period.75 women were from 61-65 years and only 6 above 65 years of age. 13 women were referred for Inadequate smear; 36 for inability to do a speculum or smear; 25 cytological abnormality; 7 women for suspicious looking cervix.

Of 25 women with cytological abnormality; 18 women had low grade dyskaryosis and 7 women had high grade dyskaryosis.

Of the 7 women with HG dyskaryosis; 6 had LLETZ and 1 had cervical polypectomy. There were no smear referrals with glandular or invasive smear. There were only 4 cases of CIN2/3 and one endometrial cancer in a cervical polyp.

36 women with difficult speculum examination had negative smear results and discharged. 8 women had Type 3 TZ; 5 of whom had LLETZ and 3 had repeat cytology.

Conclusions:

Though there have an influx of new referrals in the above 60 age group, the absolute value in comparison to the 25-60 years age group has been very low. It is reassuring to note that that only a small proportion of women had HG abnormality and no cases of cervical cancer.

P-22 OUTCOME OF LLETZ PERFORMED WITH DEPTH 7MM AND LESS AT WALSALL MANOR HOSPITAL- FOUR YEAR FOLLOW UP

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Aim

Look into the outcome of patients who had loops performed with depth equal to less than 7 mm.

Methods

All loops performed in 2013 from January – December with depth equal to less than 7 mm were collected from the database. The loops that showed CGIN or CIN 2, CIN 3 or carcinoma on histology were included. The loops that had histology of CIN 1 or HPV were excluded. The results of smear at test of cure were noted. Further visits to colposcopy and long term four year follow up until December 2017 was undertaken.

Results

Total number of loops performed with depth equal to less 7 mm depth were 121. The loops with CIN or HPV in the histology that were excluded were 18. The study looked at a cohort of 94 patients.

22% had a depth of 7mm. 56% had a depth of 5mm or less. Endocervical margins were involved in 22% of the loops. Endocervical epithelium seen at the end of the canal and was normal in 95% of the loops.

26% had negative smear but positive for HPV, 82% of the smears were negative, 7% had borderline nuclear abnormality and 3% had low grade abnormality at the test of cure. 16% had a further follow ups and only three patients had a low-grade abnormality during the follow up. There were no high-grade abnormalities nor cervical cancer detected at test of cure nor in the follow up. There have been no colposcopy visits recorded of the patients discharged to routine recall in the 4 year follow up.

Conclusion

There were no high grade abnormalities detected in the follow up. There were no persistent low grade abnormalities that needed treatment. A majority of the patients were discharged to normal recall.

P-23 MANAGEMENT OF POST COITAL BLEEDING (PCB): TIME FOR ACTION NATIONALLY GIVEN PAUCITY OF EVIDENCE BASED GUIDANCE AND FOUR FOLD INCREASE IN PCB REFERRALS TO COLPOSCOPY ON TEN YEAR REVIEW

Uma Krishnamoorthy[1,2]

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Introduction and Background:

Post coital bleeding (PCB) consists of spotting or bleeding that occurs during or after sexual intercourse can be alarming for patients as is a cardinal symptom of cervical cancer although mostly due to benign causes.

Aims and Objectives:

To evaluate current trends in referral & management of PCB to guide development of PCB referral & management pathway.

Methodology:

Retrospective 10 year review of PCB referrals to Colposcopy &further case note review of 18 months cohort.

Results:

10 year review revealed upward trend in number of PCB referrals to colposcopy (N=1250) with 4 fold increase in referrals over 10 years. 1 in 5 had biopsy and in cohort biopsied, CIN was seen in 26% (327), CIN 2 or above in 13.5% (169), CIN 1 in 12.6% (158), Cancer in 0.6% (7) and CGIN in 0.7% (8).

18 month case note review of 256 patients revealed that 9% were referred under 2 week cancer pathway, 43% as routine referrals to Gynaecology & 48% directly referred to Colposcopy. In total 256, there were 6.2% CIN &0.4% cancers. 1 in 4 (24.4%) had CIN & 1 in 50 (1.8%) had cancers in biopsied cohort. Mean waiting time was 37.5 days when GP referred directly to colposcopy and 60 days when referred from gynaecology. 24.4% who had biopsy revealed CIN on histology, 1.8% cancers, 40% Inflammation, 2% endometriosis, 4% with wart virus features and 28% nonspecific.

Conclusion, Recommendations and Action Plans:

Review revealed upward trend in pattern of PCB referrals with 4 fold increase over 10 years, prevalence of CIN as 6%, cancer/CGIN as 1%. Review identified need for standardised National guidance as there is paucity of BSCCP/national/college guidance on management of PCB besides scope to update RCOG & GP training curriculum to raise awareness. Local PCB pathway has since been implemented.

P-24 INVASIVE CANCER OVER A DECADE IN A DGH

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Introduction:

Cervical cancer continues to develop despite a longstanding screening programme. Rotherham is a small, socio-economically deprived area where risk factors for cervical cancer are prevalent. Local data collected for the NHSCSP National Invasive Cancer Audit over ten years has been collated to allow trends to be seen and engagement with screening to be determined. In addition, the disclosure policy and colposcopy reviews introduced by the NHSCSP have also been evaluated.

Method:

Local data collected for the National Invasive Cancer Audit over the past ten years was collated. For each year data was summarised to allow direct comparison over the ten year period. Any colposcopic reviews were summarised.

Results:

There have been 125 cases of invasive cervical cancer in Rotherham between 2007 and 2017. The annual number of cases has fluctuated between 3 and 17, the lowest being in 2010. The mean age at diagnosis has remained consistent (range 40-54yrs). There has been little change in the proportion of women diagnosed with cancer who have not previously engaged with the screening programme. Those who attended had on average 5 smears prior to diagnosis. There have been 3 cases with false negative smear results on colposcopy review and two cases that have been re-categorised. No patients have asked for disclosure to date.

Conclusion:

Within Rotherham, the demographics of women who have developed cervical cancer in the last ten years remain largely unchanged. A consistent proportion of these women have not previously engaged with cervical screening. There have been 3 false negative smear reports and two re-categorised, however no patients have requested the results of their review. These results highlight that there are still some women developing cervical cancer who have not previously been screened. Efforts are needed to engage with this population and continue to develop public awareness about cervical cancer.

P-25 EXCISIONAL TREATMENTS SHOWING LESS THAN CIN 1 – ARE WE OVER-TREATING?

Deirdre Lyons[1], Ali Kubba[2], Tomas Barani[2], Emma Sinfield[2], Joe Llahi[8], Adam Rosenthal[3], Liz Cherfan[4], Shruti Mohan[4], Panos Sarhanis[5], Chetana Patel[5], Anne Jackson[7], Lorraine Burnham[6], Susan Harper[7], Eddie Bolandi[9], Tim Green[9], Jorge Marin[9]

[1]Imperial College Healthcare NHS Trust, United Kingdom, [2]Guy's, St. Thomas Hospitals, United Kingdom, [3]University College Hospital London, United Kingdom, [4]Hillingdon Hospital NHS Trust, United Kingdom, [5]North West London Hospitals NHS Trust, United Kingdom, [6]Barnet Hospital, United Kingdom, [7]Chase Farm Hospital, United Kingdom, [8]North Middlesex University Hospital, United Kingdom, [9]Cyres UK, United Kingdom, [10]London PHE SQAS, United Kingdom

The cervical screening programme in the UK has been successful in preventing cervical cancer. However, work by Kyrgiou, Castanon and others has shown that cervical excisional treatments have an associated morbidity.

Locally it is recommended that 80% of excisional treatments should show ≥CIN 2.

34,446 patients had first visits in 2016/17 in London. 6250 (18.1%) women underwent an excisional treatment and 252 had ablation following biopsy

An audit was carried out looking in-depth at excisions showing ≤CIN 1

Methods:

An Audit proforma was created and a query created using Cyres. Data from 8 London Units was collected, collated and analysed.

Results:

8 Units provided data from 2016.17 as per Audit proforma – these 8 London Units saw 36% (12,253/34,446) of all new London referrals between them.

The total number of treatments per Unit showing ≤CIN 1 on final outcome differed per Unit

(CIN 1 or less on excision/ total number of treatments per Unit)

North Middlesex Hospital – 37/273 (13.6%)

Imperial College Healthcare NHS Trust – 91/327 (27.8%)

Hillingdon Hospital – 68/243 (27.9%)

GSTT – 107/518 (21%)

UCLH – 55/186 (29.6%)

North West London Hospitals – 39/263 (14%)

Barnet – 38/157 (24.2%)

Chase Farm Hospital - 42/137 (30.6%)

Age played a role in decision to treat LG disease.

Parameters looked at in detail - patients with HG cytology/ HG histology prior to excisional treatment.

HG Cytology/ histology prior to Excision showing ≤ CIN 1

Overall – 256/477 (53.7%)

North Middlesex – 18/37 (48.6%)

Imperial – 46/91 (50.5%)

Hillingdon – 46/68 (67.6%)

GSTT – 74/107 (69.1%)

UCLH – 17/ 55 –(30.9%)

North West London Hospitals – 24/39 (61.5%)

Barnet Hospital – 25/38 (65.8%)

Chase Farm Hospital= 6/42 (14.3%[0])

Overall there was not evidence of over-treatment.

There was good use of MDT, both pre- and post-treatment with outcomes of ≤CIN 1

P-26 12 MONTH OUTCOME OF WOMEN PRESENTING TO COLPOSCOPY WITH NEGATIVE CYTOLOGY AND HR HPV

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North West Anglia NHS Trust, United Kingdom

Background:

To understand the background risk of persistence or progression of CIN in women referred to colposcopy with negative cytology and HR HPV positive test

Method:

75 women present to the colposcopy unit from 1.4.13 to 31.3.14 with negative cytology and HR HPV positive test.

Results:

43/75 (57%) had normal colposcopy and were discharge to routine recall. At follow up cytology 38/43 (88%) had negative cytology and HPV test. 18/75 had unsatisfactory colposcopy.

18/75 (24%) had unsatisfactory colposcopy and were advised follow up cytology in 12 months. 13/18 had (72%) negative cytology at 12 months.

14/75 (18.6%) were noted to have CIN on colposcopy. 11/14 had LG CIN and were advised follow up cytology in 12 months . 9/11 (81%) had negative cytology at 12 months. 3/14 women had CIN 2 on colposcopy. Two had negative punch biopsies and had follow up cytology in 6 months which was negative. One had conservative management of CIN 2 and follow up cytology was negative.

Conclusion:

The risk of Progressive CIN on follow up is low in women presenting with negative cytology and HR HPV positive test. 84% women had negative follow up cytology at 12 or 36 months. If colposcopy is unsatisfactory at initial assessment there is a greater likelihood of having an abnormal smear at follow up. Only 3/75 (4%) had progressive high grade cytology on follow up.

P-27 USING DATA FROM KC65 SUBMISSIONS TO ANALYSE CAPACITY AND ASSESS RESILIENCE WITHIN A SERVICE

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[1]PCA, London SQAS, United Kingdom, [2]London PHE SAQS, United Kingdom

All Colposcopy Units in England submit quarterly and annual KC65 returns. These returns provide local Screening Quality Assurance Services and NHS Screening Commissioners with evidence of performance against standards for referrals, outcomes and patient treatment and communication.

DNA's in Colposcopy have a national standard of 15%, that all Units have to provide evidence of adherence to.

There are however a number of other data items collected in KC65 and National dataset reports, that do not have an NHSCSP standard or are not analysed in detail.

Two of these data items collected are 'Cancelled by Clinic' and 'Cancelled by patient'.

'Cancelled by clinic' is equivalent to Hospital Initiated Cancellations (HIC's) and Cancelled by patient equivalent to Patient Initiated cancellations (PIC's) in general Out-Patient settings.

HIC's are a measure of resilience and forward planning for capacity, within a service.

In order to further analyse HIC's and assess whether methods of decreasing DNA's increased PIC's, London data was analysed for year 2016.17.

HIC's were reviewed by overall London figures and then by region and by Unit.

The overall HIC rate for London has remained stable for many years at 4.5%, but looking at HIC's by region, showed South London was persistently over 6%, with North East and Central London increasing to >6% in the past year.

Broken down by Unit, some units were as high as 11 -13%, which means that there is considerable disruption to patients and the service. One obvious factor is lack of staff to provide cover for leave i.e CNS in Colposcopy.

This is important in planning for future changes in capacity to build resilience into a service and a review of HIC's is one way of evidencing this.

Review of London DNA's shows that in using methods to decrease DNA's, the PIC rate has increased.

P-28 COMPLETE AUDIT CYCLE OF POST HYSTERECTOMY SMEAR GUIDANCE DEMONSTRATING SIGNIFICANT SERVICE IMPROVEMENT FROM 2014 TO 2017

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North West Anglia NHS Foundation Trust, United Kingdom

The NHSCSP publication 20 states the responsibility for implementing follow-up policies concerning cervical smears following a hysterectomy rests with the treating gynaecologist and will be informed by the local lead colposcopist. Our aim was to investigate whether a clear written advice letter was sent by the gynaecologist to the patient's GP stipulating plans for cervical smears in the future. We report a complete audit cycle demonstrating a significant service improvement in our department.

The first audit performed in 2014 included data over a 12-month period showing a poor compliance of 25.6% to the standard in all elligible hysterectomy procedures. The main reasons were the lack of awareness from clinicians concerning the standard despite previous awareness efforts by the Lead Colposcopist. Standard letters concerning follow up arrangements for smears were then developed by the Lead Colposcopist to assist clinicians and awareness was raised through governance sessions. Secretaries were involved in the process of reminding clinicians about smear advice for eligible women when histology reports were reviewed. A subsequent audit after implementing the measures in 2017 in a similar time period showed a compliance of 74.4% demonstrating a 53% improvement. The first audit had shown a higher compliance by consultants who were colposcopists and the second audit shows more uniform practice amongst all clinicians. This demonstrates the effectiveness of our initial action plan. A new action plan has been produced to further improve practice and the expectation is to achieve 100%. We have liaised with our local hospitals with a better performance to improve our practice. A further audit will be undertaken in due course.

This complete audit cycle is an example of service improvement achieved by education, training, MDT work and access to resources with a robustly monitored action plan following both auditing episodes.

P-29 TEST OF CURE PROTOCOL FOLLOWING TREATMENT FOR CERVICAL ABNORMALITIES: AN AUDIT

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[1]Daisy Hill Hospital, United Kingdom, [2]Craigavon Area Hospital, United Kingdom

Introduction

Women who have been treated for cervical intraepithelial neoplasia (CIN) undergo a test of cure protocol based on human papilloma virus (HPV) testing combined with liquid based cytology smears to ensure they receive adequate follow up. This audit aimed to assess this unit's compliance with the relevant audit standards

Methods

50 cases seen at colposcopy at Daisy Hill Hospital (DHH) between January-August 2015 were reviewed using the Northern Ireland Electronic Care Record system. Data was verified by reviewing a subset of patients' results using Excelicare.

Results

49 women were included in the analysis. The mean age of women at time of colposcopy was 33.1 years. 34 women (70%) were managed with a LLETZ procedure and 15 women (30%) received cold coagulation. 28 women (57.1%) had a TOC performed 6 months after treatment. 40 women (81.6%) had a TOC within 9 months of treatment. Of the 21 women who did not have a TOC at 6 months, 12 did not attend 1 follow up appointment, 4 failed to attend two follow up appointments and 4 failed to attend 3 or more follow up appointments. 1 women had a delayed TOC due to pregnancy.

Discussion

This audit examined a time period in which the test-of-cure protocol had just been implemented. While the vast majority of women did have a follow up smear in the 9 months following treatment only 57.1% of women had a timely smear 6 months post treatment as defined by the audit standards. Follow up of patients was good, and only one patient from this small cohort was lost to follow up. 90% of TOC smears were normal, which reaches the audit standard

Conclusion

Further studies may be useful to identify barriers to timely TOC smear access and attendance.

P-30 HISTOLOGICAL OUTCOMES OF HIGH GRADE (SEVERE) CYTOLOGY REFERRALS: IS THE "SEE AND TREAT" APPROACH APPROPRIATE WHEN THE COLPOSCOPIC IMPRESSION SUPPORTS THE SMEAR?

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Western Sussex Hospital Trust, United Kingdom

Background

This audit was conducted to evaluate the use of see and treat procedure in women with severe cervical cytology results and high grade colposcopic impression. Women with high grade disease are offered treatment in the form of a LLETZ (large loop excision of the transformation zone) procedure, sometimes only after a cervical biopsy confirms the cytology result.

Methods

Data was retrieved from the Colposcopy database for patients referred to the Colposcopy Clinic at Southlands Hospital with cervical cytology indicating High Grade Dyskaryosis (severe) between 1st Jan 2015 – 30th June 2015 and re-audit data was collected between 1st Jan 2016 and 31st Dec 2016.

Results

In 2015, 54 patients were referred with high grade (severe) cervical cytology. 26 patients (48%) were offered a see and treat LLETZ procedure, whereas 28 patients had a directed cervical biopsy. All 26 patients in the see and treat group with high grade colposcopy had histology of CIN 2/3. The high grade colposcopy group who had biopsies, all went on to have a LLETZ procedure which showed CIN 2/3.

In 2016, 65 patients were referred with high grade cervical cytology. 57 (88%) had high grade colposcopy and 51 (89%) of them were offered a see and treat procedure. Histology showed CIN 2/3 in 100% of the LLETZ specimens. 6 patients had a directed cervical biopsy and 100% had histology of CIN 2/3, 5 of them went on to have a LLETZ procedure.

Conclusion

There has been an increase in numbers of offered see and treat procedures from 2015 to 2016 and a decrease of biopsies following recommendations in 2015 to offer see and treat procedures over biopsies. This audit cycle shows that colposcopists should feel reassured that the data supports offering see and treat over biopsy if the colposcopic impression supports the cervical cytology.

P-31 A REVIEW OF CONSERVATIVE MANAGEMENT OF CIN2: A THREE YEAR TERTIARY CENTRE EXPERIENCE

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[1]Northern Gynaecological Oncology Centre (NGOC), United Kingdom, [2]Northern Institute for Cancer Research (NICR), Newcastle University, United Kingdom, [3]Newcastle University, United Kingdom

Background

The management of CIN2 in women wishing to retain fertility is controversial and national guidance is lacking. Conservative management(CM) of CIN2 aims to allow time for the humoral immune system to clear the aetiological agent, HPV.

Objectives

To review the proportion of women opting for CIN2 CM and assess compliance with departmental protocols. Additionally, to review rates of regression, persistence and progression.

Method

All patients diagnosed with CIN2 from 2014 to 2017 within our department were identified. Clinico-pathological data including, colposcopy findings, referral cytology and cervical histology were collated and analysed by treatment intention using standards from our departmental protocol. CM included 6 monthly colposcopy, cytology +/- punch biopsy (PB).

Results

In the study period 181/281 (64%) women underwent LLETZ as a primary procedure following diagnostic PB for CIN2. 151/181 (83%) were ≤40 years and 22% nulliparous. In the same period 100 patients opted for CM following histological confirmation of CIN2. 35 women (35%) underwent LLETZ, at a median of 11 months (3-25 months), with persistent CIN2 in 11 (31%), progression to CIN3 in 10 (29%) and regression to ≤CIN1 in 14 (40%). Of the remaining 85 patients, 15 (18%) have completed 2 years FU with cytological and/or histological evidence of regression, giving an overall rate of 58% for regression, 22% for persistence and 20% for progression. An additional 23 (27%) patients have histological evidence of regression <2 years from diagnosis, suggesting that as the cohort matures, regression rates may increase.

Conclusions

CM for CIN2 is an option for a small proportion of patients. Patients and clinicians must be motivated, with provision of clear explanation for a need for >4 colposcopy appointments following diagnosis. High rates of regression can be achieved with careful surveillance and counselling. QoL and health economic assessments are lacking.

P-32 VAULT CYTOLOGY AUDIT HOW CAN WE IMPROVE?

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Shrewsbury and Telford NHS Trust, United Kingdom

Objectives

Vaginal vault cytology sampling following hysterectomy is recommended for specific indications in national guidelines. The audit objective was to quantify how many patients undergoing hysterectomy at SATH required vault cytology and if this was arranged, plus inform a new protocol.

Methods

Local electronic coding records were searched between 1st January and 31st December 2014. Clinical, clerical and histological data for all patients undergoing hysterectomy was collected using local electronic pathology portals and Open Exeter.

Results

Total, 314 patients were identified, with 300 patients meeting the inclusion criteria for the audit. The median age was 51 years (range 31-90). The hysterectomy histology results showed that 68 patients (22%) had pre-malignant or malignant lesions of the uterus or cervix, the majority had benign conditions. Abnormal squamous cervical cytology prior to hysterectomy was identified in 11 patients, 8 (73%) correctly had vault cytology.

A cohort of 40 patients were not under normal cervical screening recall prior to hysterectomy. This cohort had 9 vault cytology samples performed, 5 of which had no indication. The total number of vault samples that should have been taken was 22, 18 (80%) samples were performed. A small number of vault samples were taken in error 8 (3%) out of a total of 278 patients who did not require follow up.

Conclusion

A high proportion 80% of cases complied with national guidance with a low percentage 3% of inappropriate vault samples. However 20% of patients did not have vault cytology sampling when this was indicated. This is likely due to the complex guidance that is misunderstood in both primary and secondary care.

Vault follow-up of patients post hysterectomy rests with the team performing the surgery. The new departmental guidance including revised histology reporting and lead clinician co-ordinating vault follow up should avoid unnecessary clinical governance failings.

P-33 AUDIT OF LOOP EXCISION BIOPSIES WITH NEGATIVE HISTOLOGY ACROSS 3 COLPOSCOPY UNITS, WITHIN A SINGLE NHS TRUST

Robert Parker, Raj (Prithwiraj) Saha, Jane Groves

Heart of England NHS Foundation Trust, United Kingdom

Introduction and rationale for audit:

Concerns had been raised within the multidisciplinary team that the Trust had higher than expected numbers of loop excision biopsies with negative histology. Reported rates of negative histology following large loop excision of the transformation zone (LLETZ) vary, and there appears to be no national recommendation regarding an acceptable rate of negative histology LLETZ. We sought to audit our practice in order to try to identify possible areas of improvement.

Method:

Retrospective audit of 100 cases of LLETZ specimens with negative histology, from 3 colposcopy units within a single NHS Trust, between 1/7/2015 and 1/7/2017. Data on individual cases was obtained from the electronic colposcopy database used by the Trust.

Criteria and standards:

Fewer than 20% of LLETZ samples should have negative histology (an arbitrary rate, as no national standard was found).

Results:

Across a two-year period, the Trust-wide negative LLETZ rate was 191/829 cases (23%). Rates for each individual colposcopy unit (located at 3 different sites within the Trust) were 15.7%, 20.4%, and 28.1%. 35% of negative LLETZ had previously had low grade or borderline cytology; 33% had high grade cytology, and; 13% were referred due to suspicious symptoms. Colposcopic impression included high grade lesions in 29% of cases; low grade in 19%, and; was unrecorded in 17%. MDT discussion occurred for 58% of the negative cases, and 28% had a 'mismatch' reviewed at MDT. In 9% of cases, the original cytology was downgraded at MDT. Levels of documentation were poor in some areas, e.g. type of Transformation Zone (only 11% were recorded).

Conclusions and recommendations:

Improve documentation by entering data directly into the colposcopy database (discontinue paper proformas).

Reduce negative LLETZ, e.g by using directed biopsies rather than LLETZ when possible.

Ensure MDT discussion of negative histology to help improve practice.

P-34 AUDIT ON MANAGEMENT OF WOMEN REFERRED TO ST. HELENS COLPOSCOPY UNIT WITH POST COITAL BLEEDING (PCB)

Mr Tim Kundodyiwa, **Claire Pearson**

St. Helens and Knowsley Hospital Trust, United Kingdom

Introduction:

Post-coital bleeding (PCB) is defined as bleeding occurring during, or immediately after sexual intercourse. Although worrying to the presenting patient it is rarely a sign of sinister pathology. There are no PCB specific national or RCOG guidance available. Given the anxiety and the fact that it is the presenting symptom in cervical cancer in 11% (and up to 39% in some cohorts) there is the need for a streamlined referral pathway for PCB

Objective:

To evaluate current management of PCB at St H & K against available standards to benchmark as reference for future re-audits. Determine the frequency of pathology in women with PCB. Update the local guideline regarding management of PCB.

Methodology

Retrospective case notes audit of population identified by Compuscope report writer of PCB referrals to colposcopy clinic between July 2016 to January 2017 (n=141). Outcome measures assessed included smear history, Colposcopy findings, histology and treatment. Data collected with an approved audit tool proforma and analysed.

Results

- 10 % had documented evidence of infection screen with swabs (Standard: 100%).
- 14 % had documented evidence of smear history (Standard: 100 %).
- 1 in 3 had a biopsy (LETZ, punch, polypectomy (No Standard: Colposcopist Opinion important).
- 7 out of 43 punch biopsies had CIN (16 %).
- 2 loop excision performed had High grade CIN (CIN 2)
- 1 out of 140 (0.7%) in this cohort had Cervical cancer (Stage 1B1)
- In the cohort that had a cervical biopsy (punch and LETZ) the pick-up rate of CIN 1 or higher was 2 out of 43 (5 %)

Conclusion

All patients referred with PCB must have their smear, swab and contraception history documented and evaluated.

Colposcopy assessment should be carried out in all patients with PCB/cervical ectopy and consider obtaining directed cervical punch biopsies where appropriate.

P-35 AUDIT OF CONSERVATIVE MANAGEMENT OF CERVICAL INTRAEPITHELIAL NEOPLASIA 2 (CIN 2)

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[1]Milton Keynes University Hospital, United Kingdom, [2]Milton Keynes University Hospital, United Kingdom

Aim:

The aim of the audit was to evaluate cases of conservative management of CIN2.

Methods:

Retrospective audit. Data collected from electronic records. Time period from 8/2/2015-1/11/2017. Total consecutive cases studied were 27.

Results:

62% women were aged 20-25 years. 63% were nulliparous.31% were smokers and 41% were on the pill. 100% women were counselled about the options and seen by a consultant.

Referral smear was low in 22%, borderline in 4%, high(severe) in 11% and high (Moderate)in 56% cases. Colposcopy showed CIN 2 in 44%, CIN 1 in 30% and CIN 3 in 11%. Cervical biopsy showed CIN 2 in 30%, CIN1/2 in 59%.

Colposcopy in 6 months showed-CIN 2 in 15%, CIN1/2 in 18%. Smear in 6 months showed- high grade in 22%

Colposcopy in 12 months showed- CIN 2 in 4%, awaited in 4%

70% women did not require any treatment. LLETZ was performed in 30% cases. Final histology showed- CIN 2 in 7%, CIN2/3 in 15% and CIN1/2 in 4%.19% were discharge to routine recall in 11 months and 4% in 17 months. Final histology showed CIN2 in 26% cases.

Conclusions:

60% women who acquired CIN2 were less than 25 years of age and were nulliparous. 70% of the women did not require any treatment and there were no cases of cancer. This supports the conservative management of CIN2 especially in younger women who have not completed their family.

References:

Macdonald M, Conservative management of CIN2: National Audit of British Society for Colposcopy and Cervical Pathology members' opinion.

J Obstet Gynaecol. 2017 Dec 6:1-7

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Loopik DL, Regression and Progression Predictors of CIN2 in Women Younger Than 25 Years. J Low Genit Tract Dis. 2016 Jul;20(3):213-7.

P-36 OUTCOME OF REFERRALS WITH BORDERLINE CHANGE IN ENDOCERVICAL CELLS - A WELSH PERSPECTIVE

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[1]*Cervical Screening Wales, Public Health Wales, United Kingdom,* [2]*Screening Division, Public Health Cardiff*

Cervical Screening Wales (CSW) introduced high risk human papillomavirus (HRHPV) triage of low grade abnormalities into the cervical screening programme on 31st May 2016.

Prior to this, women who had a result showing borderline change in endocervical cells were referred to colposcopy. CSW standards were that these women should be seen for assessment within 8 weeks.

Following the introduction of HRHPV triage, women who were reported as having borderline change in endocervical cells were only referred if the HRHPV test was positive or unavailable. If the test was negative, the management was routine recall (unless this was a Test of Cure sample following CGIN).

This audit of referrals was undertaken to assess the risk of high grade abnormalities following a referral with borderline change in endocervical cells, and to see whether the standard for time to assessment should be reduced.

In the 12 months following the introduction of HRHPV triage, 70 women were either referred to colposcopy as new patients, or had this result in colposcopy with subsequent investigations.

3 of these women were HRHPV negative but referred as they had previous CGIN.

1 woman did not attend, and 1 was referred for hysterectomy (outcome as yet unknown) therefore excluded from this analysis.

The outcomes for 68 women were as follows: -

- 1 woman had invasive cervical cancer
- 11 women had CGIN
- 8 women had CIN 3
- 7 women had CIN 2
- 13 women had CIN 1

The positive predictive value of this grade of cytology result for CIN 2 or worse was 40%.

As these women have a higher risk of high grade disease compared with low grade cytology, recommendations have been made to reduce the standard for time to assessment in Wales to 4 weeks, in line with that for high grade dyskaryosis.

P-37 AUDIT OF CONSERVATIVE MANAGEMENT OF CIN2

Anupama Ram Mohan, **Shandil Singh**

Milton Keynes University Hospital, United Kingdom

Aim:

The aim of the audit was to evaluate cases of conservative management of CIN2.

Methods:

Retrospective audit. Data collected from electronic records. Time period from 8/2/2015-1/11/2017. Total consecutive cases studied were 27.

Results:

62% women were aged 20-25 years. 63% were nulliparous.31% were smokers and 41% were on the pill. 100% women were counselled about the options and seen by a consultant.

Referral smear was low in 22%, borderline in 4%, high(severe) in 11% and high (Moderate) in 56% cases. Colposcopy showed CIN 2 in 44%, CIN 1 in 30% and CIN 3 in 11%. Cervical biopsy showed CIN 2 in 30%, CIN1/2 in 59%.

Colposcopy in 6 months showed-CIN 2 in 15%, CIN1/2 in 18%. Smear in 6 months showed- high grade in 22%

Colposcopy in 12 months showed- CIN 2 in 4%, awaited in 4%

70% women did not require any treatment. LETZ was performed in 30% cases. Final histology showed- CIN 2 in 7%, CIN2/3 in 15% and CIN1/2 in 4%.19% were discharge to routine recall in 11 months and 4% in 17 months. Final histology showed CIN2 in 26% cases.

Conclusions:

60% women who acquired CIN2 were less than 25 years of age and were nulliparous. 70% of the women did not require any treatment and there were no cases of cancer. This supports the conservative management of CIN2 specially in younger women who have not completed their family.

References:

Macdonald M, Conservative management of CIN2: National Audit of British Society for Colposcopy and Cervical Pathology members' opinion.

J Obstet Gynaecol. 2017 Dec 6:1-7

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Loopik DL, Regression and Progression Predictors of CIN2 in Women Younger Than 25 Years. J Low Genit Tract Dis. 2016 Jul;20(3):213-7.

P-38 HAS PRIMARY HPV SCREENING AFFECTED THE DETECTION OF CGIN? - RESULTS FROM A PILOT SITE

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Evidence demonstrates primary HPV screening has increased sensitivity and negative predictive value when compared to liquid-based cytology alone for detecting cervical intraepithelial neoplasia (CIN). Less is known regarding primary HPV screening and detection of cervical glandular intraepithelial neoplasia (CGIN).

Aim

To compare the number of cases in our unit of CGIN before and after the introduction of primary HPV screening, and to describe the characteristics of women diagnosed with CGIN.

Methods

Compuscope™ software was used to identify all the women who were diagnosed with CGIN since 2009. Microsoft® Excel was used to record the characteristics of these women, including age, parity and smoking status. CGIN diagnoses and women's characteristics for four years before and after the introduction of primary HPV in 2013 were compared. The year 2013 was discounted as a mixture of HPV triage and cytology occurred during this period.

Results

Twenty-eight women whose smears were analysed via LBC were diagnosed with CGIN in the period 2009-12; this rose to 61 women in 2014-17 after the introduction of primary HPV screening. This represents a 117% increase in the number of women with CGIN between the two time periods. Thirteen women with CGIN who underwent HPV primary screening would not have been invited for colposcopy under the liquid-based cytology protocol. There were no significant differences between the two groups in mean age, number who were immunocompromised, smoking status, or parity.

Conclusion

The number of women diagnosed with CGIN has significantly increased since the introduction of HPV primary screening at our unit. Considering that the number of women attending for smears in the region has generally fallen, and that there were no differences in the characteristics between the two groups, it is reasonable to conclude that HPV primary screening has led to a rise in the detection of CGIN.

P-39 IS IT TIME TO MAKE CHANGES TO THE GUIDELINES ON INTERVALS BETWEEN CERVICAL CYTOLOGY SCREENING TESTS IN WOMEN LIVING WITH HIV (WLHIV)?

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Background:

NHSCSP guidelines recommend yearly cervical smear tests for all WLHIV. The CDC recommends that after 3 consecutive normal annual smears, the screening interval can be extended to three yearly. CIN and invasive cancer rates are higher in WLHIV compared to the non-HIV population and are associated with severity of immunosuppression. ARV reduces the risk of abnormal cytology. The aim of this audit was to find is it necessary to do annual cervical cytology in all WLHIV

Method

A retrospective review of all HIV-positive patients attending the smear clinic within our HIV outpatient department between 01 /1/14 and 31/12/17 was undertaken. Demographics, laboratory values and cervical cytology data were extracted from electronic databases .

Results

259 women attended the smear clinic during this period: mean age 43.6 years (SD 9.38), 89% were black. The nearest median CD4 count checked at the time of cervical cytology was 637(IQR 436-875), 93% had an undetectable viral load at the nearest time of smear. 11.1 % had abnormal smear result of which 0.7% were high grade. 140 patients' smear history beyond 7 years were attained. Those with 3 previous negative smears (111) had a median CD4 count of 680 (IQR 456-876) and always had normal smear tests but those with an abnormal smear (29) had a median CD4 count of 576(IQR 319-832) and never had 3 negative smears.

Conclusion

Among our cohort, cervical cytological abnormalities were found at higher prevalence than in the general population but high grade abnormalities were low. Even though this is a small retrospective cohort, it suggests that for those patients with three previous consecutive negative smears, who were on treatment and had high CD4 counts, longer intervals between cervical cytology may be appropriate. This would be both cost saving but also reduce the number of outpatient appointments.

P-40 PATIENT SATISFACTION WITH COLPOSCOPY: FEEDBACK FROM CLINICS WITHIN NHS LOTHIAN

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Introduction:

In 2016-17, approximately 420,000 cervical cytology samples were processed in Scotland, 8.5% of which required a colposcopy referral. Colposcopy is often associated with increased anxiety, in part due to the intimate nature of the examination and the inevitable cancer worry, but also because many young asymptomatic women will have had little, if any, personal experience of medical contact or disease. Patient feedback on colposcopic service delivery is essential to reduce potential negative psychological sequelae associated with receiving an abnormal cytology result and encourage higher screening uptake rates.

Methods:

Attendees at colposcopy clinics in Lothian, from June to August 2017, were invited to complete an anonymous questionnaire – a 13 point survey related to Section 5 of the NHSCSP Publication 20, 2016. Questions pertaining to information received prior to and after examination, anxiety, pain during examination, receipt of results and overall satisfaction were included.

Results:

596 colposcopy clinic attendees completed the questionnaire. Information pre/post examination and that relating to receipt of results was scored positively by over 90% of respondents. 75% expressed having experienced some degree of anxiety on the day. 16 individuals (2.7%) described ''very bad pain'' during their examination; 9(56%) of whom had felt ''very anxious'' before the procedure. Overall patient satisfaction was graded on a 10-point scale, with 90% rating the service as ≥ 8/10.

Conclusion:

The majority of individuals attending the colposcopy clinics in Lothian were willing to give feedback, and there was a high level of satisfaction with the service. However some level of anxiety featured in 75% of respondents, and the adverse consequences of anxiety, such as a heightened perception of pain should not be overlooked within colposcopy services. Attempts should be made to seek out and invest in anxiety-reducing measures whilst ensuring that anxiety-provoking influences are minimised.

P-41 AUDIT OF LLETZ EXCISION DEPTHS WITH A FOLLOW UP AUDIT

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Background:

Shallow Loop excisions of transformation zone (LLETZ) are associated with non-eradication of the CIN and prolonged follow up. Deeper than recommended LLETZ are associated with increased risk of mid trimester miscarriage in the childbearing age. More than one excision sample leads to disorientation of the excision margins, sub-optimal histology report, prolonged follow up and repeated unnecessary treatment.

Aim:

To review our departmental practice of excision depths according to squamocolumnar junction (SCJ) type in LLETZs and compare our results over 2 separate audits.

Method:

A complete audit cycle of two retrospective audits performed between 31st March 2015 to 1st of April 2016 and a follow up audit from 1st March to the 30th September 2017. 163 and 86 patient LLETZ data were collected respectively. The results were compared against the NHSCSP Guideline 20 targets.

Results:

Data from both audits plotted in tables for comparisons. There was a significant improvement from the initial audit in the LLETZ depth at all types of SCJ. 85% of the required LLETZ depth for Type 1 was achieved in the re-audit compared with 58% achieved initially. We achieved a 100% in both SCJ 2&3 of the required excision depth in the re-audit. 88% of the LLETZ were excised as a single sample. 13 and 11% of the LLETZ were negative in both audits. 21% of the negative LLETZ were discussed in the colposcopy MDT in the initial audit versus 50% in the follow up audit.

Recommendation:

To audit the follow up smears and test of cure (TOC) after 6 months.

To discuss the negative LLETZ at the colposcopy MDT.

P-42 ENHANCED COMPLIANCE WITH NATIONAL STANDARDS ACHIEVED THROUGH STANDARDISATION OF HISTOLOGY REPORTING PROCESS OF LARGE LOOP EXCISION OF TRANSFORMATION ZONE OF CERVIX (LLETZ) THROUGH UPDATED ORGANISATIONAL STANDARD OPERATING PROCEDURE (SOP)

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Background:

Royal College of Pathologists& NHS cervical screening programme (Publication10) published national standards &datasets for reporting cancers&cervical Neoplasia as an integrated approach to histopathology reporting in cervical screening. There were 2cases at our Trust where LLETZdepth was not included on histology-report. As action plan from shared-learning, Standard Operating Procedure (SOP) for LLETZhistology reporting was updated in2016. The updatedSOP included local standard to explicitly state third dimension as ''LLETZdepth in mm'' due to precedent cases and as this directly impacts patient management.

Aims and Objectives:

To drive standards through quality improvement strategy &evaluate impact of updated SOP on compliance with National standards.

Methodology:

Retrospective comparative review, undertaken in 2population groups. Cohort1:25randomly selected LLETZhistology reports prior to updatedSOP(2015) & Cohort2:25cases post-SOP(2017).

Results:

Significant improvement was noted in 5key standards after implementation of updatedSOP.

- Description of mucosal surface more than doubled from 20%(2015) to 56%(2017).
- Presence/absence of Transformation Zone(TZ) improved from 72%(2015)to 96%(2017).
- Three dimensional documentation of LLETZsize improved from 96%(2015) to 100%(2017)
- Clear description of number of fragments improved from80%(2015) to 84%(2017).
- Reporting of depth in words as 'depth' as per local standard improved from 46%(2015) to 76%(2017).

Overall good compliance with standards demonstrated in both cohorts:

- 100% confirmed presence/absence of dysplastic features&grades.
- 100% included description of pathology present/absent at excision margins.
- 100% had full Patient demographics in request-forms, 100%''See&Treat''cases included details of screening history in request&100%''Select&treat''cases included punch biopsy outcome in request

There was room for improvement in two standards:

- Presence/absence of features impairing histological assessment (examples: Artefacts, fragmentation, loss of epithelium etc) stated in 8% (2015) & 12% (2017)
- Inclusion of colposcopy appearance in request 88% 2015 and 80% 2017.

Conclusion and Recommendation:

Significant improvement in 5key histology reporting standards was evidenced after implementation of updatedSOP. Audit report was shared widely with multidisciplinary-teams &repeat review commissioned as ongoing Quality Improvement Project until >90%achieved across all standards.

P-43 A SERVICE EVALUATION TO DETERMINE THE SUCCESS OF HPV CLEARANCE AFTER TREATMENT FOR CERVICAL INTRAEPITHELIAL NEOPLASIA WITH LARGE LOOP EXCISION OF THE TRANSFORMATION ZONE AND COLD COAGULATION IN THE OUTPATIENT COLPOSCOPY SERVICE

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Background:

Human papillomavirus (HPV) testing within the cervical screening programme is routinely performed during the follow-up of patients after treatment for cervical intraepithelial neoplasia.

Objective:

The aim of this service evaluation was to determine the success of HPV clearance after treatment for cervical intraepithelial neoplasia (CIN) with large loop excision of the transformation zone (LLETZ) and cold coagulation in the outpatient colposcopy service.

Methods: An audit tool was used to identify all patients who underwent treatment for CIN from April 2012 to March 2014 that had an HPV test on their smear sample six months following treatment.

Results:

Of the 860 patients tested for the detection of HPV, 647 (75.2% 95%CI: 72.3-78.1%) were negative to HPV. Ten percent more women under 49 years, 619 (75.9%) had a successful treatment compared to those aged over 50 years (28)(65.1%), but the difference was not statistically significant. Of the 631 patients who were treated by LLETZ, 291 (46.11%) showed positive margins (incompletely excised disease) of which 85(20.20%) were unsuccessfully treated but this was not statistically significant. Of the 631 patients treated by LLETZ 424(67.1%) had an excision depth of 7mm or more, of these 320(75.5%) had a successful treatment. In the 207 (32.8%) patients that had an excision depth of less than 7mm 146 (71%) had HPV clearance but this was not statistically significant. In the 182 women who were treated with cold coagulation 146(80.2%) had successful treatment compared to 467 (74%) patients who experienced treatment success with LLETZ but the difference was not statistically significant.

Conclusion:

The success of HPV clearance following treatment for cervical intraepithelial neoplasia at this center is 75%.No statistically significant difference was found between treatment types, although a larger sample size may be useful in the comparison of treatment types and warrants further investigation.

P-44 RETROSPECTIVE STUDY OF THE MANAGEMENT OF CERVICAL GLANDULAR INTRAEPITHELIAL NEOPLASIA

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Invasive cervical adenocarcinoma is the second most common malignancy of the cervix and accounts for about 15–25% of all cervical cancers. The incidence of this cancer as well as its precursor cervical glandular intraepithelial neoplasia (CGIN) has increased, especially in young women. However, detection of glandular abnormalities on cervical cytology is more difficult than the detection of changes in squamous cells.

The prevalence of invasive disease among women with glandular abnormalities is 40 – 43%. Indicators of glandular abnormalities at colposcopy lack sensitivity for diagnosis.

The aims of our study were to review the management of patients with cervical glandular abnormalities.

A total of 69 women over a 10-year period with abnormal glandular smears and CGIN on histology were identified. 61% had glandular abnormalities on smears, 8% had abnormal vaginal bleeding and 6% described as ectropion.

At the first colposcopy visit, 70% of patients had large loop excision of transformation zone (LLETZ). The histology showed that 10% had invasive adenocarcinoma of cervix. Four women had endometrial cancer. 64% had CGIN; 70% of those were associated with CIN. 9% of women, who had CGIN, had only borderline nuclear changes on squamous cells or mild dyskaryosis on the referral smear (nearly 1:10). A third of LLETZ specimens had a depth of <= 7mm. The margins were incomplete in 55% of cases after initial LLETZ. Cone biopsy was performed in 45% of patients with incomplete margins. Four patients had hysterectomy for incomplete excision.

In conclusion, early diagnosis of glandular lesions still represents a real challenge for clinicians. Immediate referral for colposcopy & assessment is recommended due to high incidence of invasive disease. Women with borderline nuclear changes in squamous cells or mild dyskaryosis made up nearly 10% of the CGIN histology in our sample which is again shows that diagnosis remains a challenge.

P-45 COLD COAGULATION FOR THE TREATMENT OF HIGH GRADE CERVICAL INTRAEPITHELIAL NEOPLASIA

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Cold coagulation is an ablative method for treatment of cervical intraepithelial neoplasia (CIN), which has been infrequently used since the 1980s even though different studies have shown efficacy against all grades of CIN (CIN1-3). This is because the excisional methods have the added advantage of a histology exam.

A Cochrane review of Surgery for cervical intraepithelial neoplasia (Martin-Hirsch) found that there is no obvious superior surgical technique for treating cervical intraepithelial neoplasia in terms of treatment failures or operative morbidity (Evidence level Ia).

Cold coagulation is easily performed in the outpatient setting, requiring no analgesia, with few reported complications and less adverse obstetric outcomes such as preterm labour and second trimester loss. A recent meta-analysis by Dolman et al in 2014 looked at the efficacy of cold coagulation and found it to be as effective as LLETZ with no documented negative impact on fertility and subsequent pregnancies.

We reviewed retrospectively the cases of patients with high grade dyskaryosis over a period of 12 months who have been treated with cold coagulation.

The purpose of our audit was to evaluate:

1) That the selection of patients for performing cold coagulation met the criteria set out by the NHSCSP guidelines.
2) The social and demographic factors in selected patients
3) The outcome following the treatment with ablative method.

P-46 THE OUTCOMES OF MANAGEMENT OF WOMEN ATTENDING COLPOSCOPY WITH LOW GRADE SMEAR AND HR-HPV POSITIVE

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Retrospective audit of new patients with low grade and boderline dyskaryosis and HR-HPV positive were included. They were followed up for two years. The aim are (1) to assess the way women with low grade smears are managed, (2) to synchronise the management of these women with other regional units.

196 newly diagnosed women included and 86 of them were reviewed in the first year. 51%(44 women) were discharged. 475 showed low grade or HPV in recheck smear. 2% had LLETZ for CIN 3.

P-47 LARGE LOOP EXCISION OF THE TRANSFORMATION ZONE: A REVIEW OF CURRENT PRACTICE IN A TERTIARY HOSPITAL

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Background:

The UK national guideline(NHSCSP) recommends treatment of high-grade cervical intraepithelial neoplasia with large loop excision of the transformation zone (LLETZ). Most LLETZ are done under local anaesthesia but some require general anaesthesia (GA) . The choice of anaesthesia depends on characteristics of lesion, patient's wishes, medical conditions and the clinician's expertise.

Aim:

To evaluate cervical excisional treatment (LLETZ) for high-grade CIN with national standards.

Methodology:

A Retrospective review of patients who underwent LLETZ procedure at Princess Anne Hospital, Wessex. 156 patients had LLETZ between 01/01/2017 and 30/06/2017. 50 consecutive cases were analyzed with respect to patient demographics, medical conditions, anesthesia, duration between confirmed biopsy diagnosis and LLETZ, excision margins and complications. Data was obtained from Trust's colposcopy electronic database and results portal.

Results:

62% patients were 30 years and younger, 19 /50 (38%) being nulliparous. Most LLETZ procedures were performed in the outpatient clinic (92%), with a small proportion requiring general anaesthesia (8%). Indication for GA was documented in all the cases. 27 cases had cervical punch biopsy prior to LLETZ. 44% (12/27) treatments were performed within 4 weeks , 52% (14/27) within 8 weeks and 4% (1/27) within 11 weeks from biopsy report . In 68% of cases, the histological sample was obtained as a single specimen . Margins were clear in 44%. 1 out of 50 (2%) suffered postoperative bleeding requiring cauterization of edges under anaesthesia.

Conclusion:

In our unit, more than 90% LLETZ were performed under local anaesthesia (National standard >80%). Primary hemorrhage requiring hemostatic technique seen in 2% (National standard <5). Improvement is needed to achieve national standard in providing definitive treatment within 4 weeks from biopsy diagnosis. Given the percentage of histological incomplete excision margins, further review may be useful to correlate this with the follow-up smear (test of cure) at 6 months.

P-48 AUDIT ON FACTORS AFFECTING THE MANAGEMENT OF BORDERLINE/ LOW GRADE SMEARS IN DISTRICT GENERAL HOSPITAL. 2013 - 2016 (114 PATIENTS)

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Background:

According to NHSCSP guidelines high grade smear abnormalities should be seen within 2 weeks in colposcopy clinics and low grade abnormalities should be seen within 6 weeks of results. We were experiencing large number of patients being followed up who did not meet the criteria for colposcopy follow-ups.

Method:

Retrospective study of management of borderline/ low grade smears with positive HPV test in Maidstone and Tunbridgewells NHS trust during the period 2013 to 2014 which included 114 patients. These patients were followed-up for 2 years till 2016.

Results:

Only 56% of patients with normal colposcopy were discharged after first visit. Only 50% with negative biopsy were discharged after biopsy result. Among the initial assessments 6 of 114 patients were diagnosed and treated for cervical intraepithelial neoplasia (CIN 2/3) ~ 5% of total. 45 patients had 2-3 further appointments for repeat colposcopy/ biopsy/smear of which 2 further cases of CIN2/3 were identified which constituted ~ 4% of follow-up's. The discharge rate varied with the grade of staff seeing the patient. 62.5% of the consultant's appointments were discharged at the first visit and 80% by the second visit. Only 17% of the nurse colposcopist appointments were discharged after the first visit and 59% by the second. There were no cases of cancer in the entire study.

Conclusion:

This study shows that efficient management of patients with borderline/low grade smear results could free up of appointment slots to see new patients. The current screening programme is well designed to pick up any of the cases who could have been underdiagnosed on first visit.

Recommendations: Strict adherence to the guidelines to the new unit guidelines (2015) should enable the patients to be managed appropriately within 2 appointments. Multidisciplinary team meeting referral should be considered in cases where there is uncertainty.

P-49 USING HUMAN PAPILLOMAVIRUS TESTING TO EXAMINE THE SIGNIFICANCE OF EXCISION MARGINS IN WOMEN TREATED WITH LARGE LOOP EXCISION OF THE TRANSFORMATION ZONE

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Background

Large Loop Excision of the Transformation Zone (LLETZ) is the current gold standard treatment for Cervical Intraepithelial Neoplasia (CIN). To date there has been conflicting evidence on the significance of the resection margin status as a determinant of residual or recurrent disease.

Objective

The aim of our study was to examine the correlation between excision margin status and eradication of CIN in women who were treated by LLETZ, using HPV status post treatment as a test of cure indicator.

Methods

Women treated by LLETZ between 2012 and 2016 and for whom excision margin status and test of cure outcome were available were reviewed. Treatment success was evaluated based on the presence of a negative HPV test. Patient data was reviewed in Mediscan and APEC patient database systems.

Results

1742 women who had been treated by LLETZ had histologically confirmed CIN, known excision margin status and follow up data available. 640 (37%) had complete excision and 1102 (63%) had incomplete excision of CIN. At six months following treatment 532 (83%) patients with complete excisions and 868 (79%) with incomplete excisions were HPV negative. At eighteen months follow treatment, outcome data was available on 930 patients. 308 (89%) patients with complete excisions and 508 (87%) with incomplete excisions were HPV negative.

Conclusions

We found a statistically significant difference in HPV TOC status at six months based on excision margins. However, this difference became statistically insignificant at 18 months. This would suggest that clearance of HPV is not complete at 6 months for many women treated with LLETZ, particularly those with incomplete excision margins, and raises the concern that testing HPV status 6 months following treatment is too early. It would also suggest that excision margin status should no longer be used as a marker for treatment failure.

P-50 HOW SUSPICIOUS SHOULD WE BE OF A 'SUSPICIOUS LOOKING CERVIX'? A 5 YEAR REVIEW AT ABERDEEN ROYAL INFIRMARY

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Background:

Referrals of women out with of cervical screening with a 'suspicious looking cervix' can constitute a significant workload especially when required to meet the cancer urgent referral target.

Methods and Materials:

A Retrospective observational study of women referred with a 'suspicious looking cervix' was conducted for women seen for colposcopy in our unit 2012-17. The results were compared with a similar audit from our unit 10 years ago. Women were identified from the National Colposcopy Clinical Information and Audit System (NCCAIS). Data was extracted from colposcopy cards and entered onto Excel for analysis.

Results:

There are still few more referrals to be looked at (which would be ready for final presentation) however at present data is available on 69; 41 from general practitioners, 12 from practice nurses, 6 from sexual health clinics, 5 from general gynaecologists, 5 from other speciality consultants. 72% percent women were parous. 80% were in the age range of 30-40. 42% were smokers and 86% had a normal smear history and 7% had previous LLETZ. 92% had normal colposcopy findings and 8% had cervical biopsies. Only 3(4.3%) cases of cervical cancer that were identified.

Conclusions:

Despite the large number of referrals, only 3 women had proven cervical cancer which has not changed since our previous audit 10 years ago. Hence review at General Gynaecology clinics remains our recommended option; it allows appropriate management of related gynaecological conditions and reduces untoward anxiety in women.

P-51 THE SIGNIFICANCE OF HUMAN PAPILLOMAVIRUS AFTER TREATMENT FOR CERVICAL INTRAEPITHELIAL NEOPLASIA

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Cervicalcheck, Ireland's national cervical screening programme, recommends that cytology and Human Papillomavirus(HPV) status are tested at 6 and 18 months following treatment for Cervical Intraepithelial Neoplasia(CIN). Current guidelines recommend that women who have negative cytology but are still positive for HPV at 6 months following treatment require a repeat colposcopic assessment.

The aim of this study is to analyze the outcome in women whose first test of cure reported a positive HPV test in the absence of cytological abnormality six months following treatment for CIN.

The six month post-treatment cytology and HPV test results of women who underwent a treatment at our colposcopy clinic between 2012 and 2016 were reviewed.

Of the 3079 women who were treated, 2280(74%) had a LLETZ and 799(26%) had cold coagulation. 276(11%) women had negative cytology but were HPV positive six months after treatment. To date, 254 of these women have had a colposcopic assessment. 33(13%) required a punch biopsy because of the presence of an abnormal transformation zone. Of which, six(1.8%) had histological evidence of CIN 2. Five of these subsequently had a LLETZ, the results of which showed no abnormality in three and CIN 1 in two. One woman with CIN 2 on biopsy was managed expectantly. Eighteen months following treatment, 65 of the 276 women who were HPV positive at six months remained HPV positive.

Based on our observations over a five-year period, perhaps it is prudent to question the need for recommending repeat colposcopy for women whose first test of cure shows no cytological abnormality in the presence of HPV positivity. Furthermore, in the light of the increasing body of evidence to support the observation that HPV clearance is relatively low six months following treatment, it may be appropriate to defer the first HPV test of cure until 12 months.

P-52 OVERDUE SMEARS IN POSTNATAL WOMEN - A MISSED OPPORTUNITY?

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Introduction

Smear uptake rates in young women are falling. In the Somerset Cancer Centre we've had multiple cases of cervical cancer in recently pregnant women; nearly all were not up to date with their smear, or never had one. These women are otherwise engaging with healthcare providers and accepting antenatal/postnatal care and newborn screening. They had multiple contacts with healthcare professionals in the 1-2 years before their diagnosis of cervical cancer, which were opportunities to promote/perform cervical screening.

Audit

A snapshot audit was undertaken of 260 women who delivered in Musgrove Park Hospital in 2016, aged 25-40. In 78.5% of cases, information about smear status recorded at booking by their midwife was correct. However, at delivery, 47.3% of women were overdue a smear test. Of those overdue women (n=123), only 52% (n=64) have had a smear taken so far. Only 48.4% of smears taken postnatally from overdue women were taken within 24 weeks of delivery. Of the 123 women who were overdue, only 25.2% had a smear taken by 24 weeks postnatal.

Discussion

With nearly half of women being overdue a smear by their delivery date, it seems appropriate to target improved awareness and uptake of cervical smear in women recently pregnant. By 6 months post natal, there are still a significant number of women who have not been appropriately screened. These women have had multiple interactions with health care professionals, including midwives, GPs, practice nurses and health visitors.

We have established a quality improvement working group, made up of local stakeholders including patients, midwifery and primary care plus Public Health England. We are aiming to improve awareness and uptake amongst these women. We hope to transform the missed opportunity of postnatal care into a golden period of increased awareness, engagement and uptake of cervical screening.

P-53 HIGH GRADE NEUROENDOCRINE CARCINOMA OF THE CERVIX - A RARE TYPE OF CERVICAL NEOPLASIA "CASE REPORT"

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A thirty-eight-year-old multiparous woman who is a non–smoker presented to colposcopy clinic following in-house referral from the gynaecology clinic for a cervical lesion which was noticed during hysteroscopic sterilisation. She had no relevant past medical history and her latest cervical smear result in March 2017 was reported normal.

Colposcopic examination was satisfactory. A suspicious necrotic polyp was noted arising from the cervical canal. A polypectomy and cervical biopsy were performed. Histology showed fragments of tissue widely infiltrated by a cellular neoplasm composed of sheets of malignant cells with scanty cytoplasm, hyperchromatic and vesicular nuclei, some of which were showing prominent nucleoli. Immunohistochemistry for p16, synaptophysin, CD56 and CK7 were positive. Chromogranin was negative. Ki67 showed a proliferation index of 90%. The diagnosis of a high grade neuroendocrine carcinoma of large cell type was made. Subsequent CT and MRI of the pelvis has shown no apparent residual disease or distant spread. The patient is scheduled for a radical hysterectomy, bilateral salpingo-oophorectomy and bilateral pelvic lymph node dissection.

Neuroendocrine carcinomas of the uterine cervix are rare, clinically aggressive tumours, accounting for 0.5-1.3% of all cervical carcinomas.1 The 2014 WHO Classification categorises cervical neuroendocrine neoplasms as low grade neuroendocrine tumours (including carcinoid tumours and atypical carcinoid tumours) and high grade neuroendocrine carcinomas (including small cell neuroendocrine carcinomas and large cell neuroendocrine carcinomas).2 Cervical high grade neuroendocrine carcinomas are mostly HPV associated neoplasms, the most common HPV types being 16 and 18.3 Histologically they show a high mitotic rate with frequent geographic necrosis. 1 Diagnosis is confirmed with positive neuroendocrine marker immunohistochemistry.

Although in general, the symptoms of neuroendocrine carcinoma do not appear to differ significantly from those of other cervical malignancies, there are key differences in the management and prognosis. Accurate diagnosis of this rare neoplasm is therefore vitally important.

P-54 HISTOGRAM ANALYSIS OF INTRAVOXEL INCOHERENT MOTION MRI AND ASSOCIATIONS WITH HISTOLOGICAL FEATURES IN CERVICAL CANCER

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Objectives

The purpose of this study was to determine the value of histogram features of intravoxel incoherent motion (IVIM) magnetic resonance imaging (MRI) parameters in characterising cervical cancer and explore their relationship with histological features.

Methods

Patients with cervical cancer were retrospectively reviewed for pre-treatment diffusion-weighted (13 b-values, b=0-1,000 s/mm^2) and standard abdominopelvic MRI. Cervical biopsies of each patient were acquired for pathological assessment to determine histological subtype and grading. Parametric maps of the pure diffusion coefficient (D), a measure of tumour cellularity; and the perfusion fraction (ƒ), a measure of tumour perfusion, were generated under the IVIM model. Volumetric regions of interest (VOI) were placed to encompass the entirety of primary tumours across all relevant slices. Histogram features were calculated, and results were compared with histological subtype, squamous cell carcinoma (SCC) vs. adenocarcinoma (ACA), using the Mann-Whitney U test. Sub-group analysis was then executed by dichotomising patients by grade (well or moderately differentiated vs. poorly differentiated tumours) and test for differences in histological subtype stratified by grade.

Results

In 100 patients, 80 patients had SCC while 20 had ACA, and 42 patients had well or moderately differentiated tumours while 58 had poorly differentiated tumours. In whole-group analysis, SCC had significantly lower mean diffusivity (Dmean) and lower percentiles of D (D50, D75, D90) but has a significantly higher perfusion kurtosis (ƒKurtosis). In the well or moderately differentiated tumour sub-group, SCC remained significantly lower in diffusivity (DMean, D50, D75, D90) as well as significantly lower in perfusivity (ƒMean, ƒ10, ƒ50, ƒ75), while in the poorly differentiated tumour sub-group, SCC only had significantly higher perfusion skewness (ƒSkewness).

Conclusion

Volumetric histogram analysis of IVIM-derived histogram features is a potentially useful technique in characterising the primary tumour and demonstrated significant associations with histological subtype and grade in cervical cancer.

P-55 DO MARGINS MATTER?

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Background

Histological margin status following LLETZ remains an issue of debate regarding further treatment. Many studies have shown that disease recurrence is higher in patients with positive resection margins, however rates vary enormously between studies. Suggested explanations for this variation include differences in LLETZ technique and extent of margin cautery. We analysed patient records in our unit to determine if margin status affected test of cure (TOC) rates.

Methods

Pathology records were searched in the Western Health and Social Care Trust (Northern Ireland) for patients having LLETZ for high grade CIN (CIN 2/3) from January 2016- June 2017. 100 margin positive LLETZ specimens and 103 margin negative specimens were identified. The records for these patients were examined to determine follow-up and TOC status, on average 7 months post excisional therapy.

Results

Of 203 patients who had LLETZ for high grade CIN average age was 33.5 years and 5% of patients were immunocompromised. 6 cases had co-existing CGIN (4 in margin positive group). 63% of the margin positive group and 68% of the margin negative group had negative TOC. 7% of the margin positive group and 3% of the margin negative group required repeat excision, though more CGIN were in margin positive group. DNA rates for TOC were 10% and 5% in the margin positive and negative groups, respectively. Those infected with HPV 16 seemed to require more treatment than high risk HPV-Other.

Conclusion

Our results show that after TOC smears post LLETZ for high grade CIN, 63% of margin positive patients and 68% of margin negative patients were effectively treated, implying that margin status of the LLETZ specimen makes little difference to outcome. This is perhaps due in part to the treatment technique at time of LLETZ employed in our unit, involving cautery of the residual margins.

P-56 AUDIT OF HPV TESTING POST- TREATMENT WITH REFERENCE TO MARGIN STATUS, GRADE OF ABNORMALITY AT EXCISION AND AGE OF PATIENT

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NHSCSP 20 advises that all women remain at risk following treatment and should all be followed up (100%) 6-8 months after treatment (90%)

HPV testing post-treatment was introduced in NW London in 2012/2013

Arbyn et al - Meta-analysis showed 23.1% treated had postive margins

There was no statistical difference in specificity

However, sensitivity for residual or recurrence of disease was higher in HR-HPV testing vs margin status

Aims:

To assess treatment outcomes in terms of cytology and HPV status with reference to margin status, grade of abnormality and age of patient.

Methods: Data extraction of all patients who underwent excisional treatment from 01/04/2015 to 31/03.2017. Audit proforma and Cyres query.

Data collected included: age, referral cytology, parity, symptoms, contraception, smoking, previous abnormality, PMHx, biopsy result, TZ type, treatment result, quadrants of disease, margin status, type of treatment, length of excision, length of excision, cytology post treatment, cytology post treatment, follow up outcome

Outcomes:

658 patients underwent excisional treatment, 43 were excluded from analysis including 10 cervical carcinoma on excision.

Positive margins in 13% (80)

Follow-up cytology/ HPV status available for 86%.

437(66%) patients had HGCIN/HGCGIN on outcome of excision

Follow-up

Overall - 81 % cytology negative vs 73 % HPV negative

If the margins were positive significantly more likely to be HPV +ve (50%), than if margins clear (76%) ($p = 0.0014$) particularly in high grade abnormality

Age has no significant impact on HPV status in our study

We are continuing the study looking at HPV testing outcomes and crypt involvement and length of excision.

P-58 SHOULD ALL WOMEN WITH POSTCOITAL BLEEDING BE REFERRED TO COLPOSCOPY? AN EVALUATION OF REFERRALS TO A UK TERTIARY HOSPITAL

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Background:

Postcoital bleeding (PCB) is one of the recognised symptoms of cervical cancer. National guidelines recommend the referral of women with persistent PCB or suspicious features to colposcopy for further evaluation. PCB can also occur in a variety of benign lower genital tract conditions.

Aim:

To evaluate the outcomes of women referred with postcoital bleeding to the colposcopy service.

Method:

Retrospective review of referrals with PCB to colposcopy at Princess Anne Hospital, a tertiary Hospital and regional cancer centre in Wessex. 50 cases were evaluated using information obtained from GPS referral letter, the colposcopy electronic database and results portal. Study period was from 31/01/17 - 06/04/17.

Results:

A third of those referred with PCB were <25 years, 52% were nulliparous and the predominant contraception was the combined oral contraceptive. PCB was associated with menstrual symptoms such as intermenstrual bleeding in 32% and a prior cervical cytological abnormality was present in 20%. Just over half were thought to have a clinically visible lesion prior to colposcopy referral. The findings at colposcopy were: normal cervix (50%), benign cervical lesion (36%), low-grade CIN (4%) and high-grade CIN (2%). No invasive cancers were identified. The predominant benign lesion was a cervical ectropion (78%); the remainder being polyps and nabothian cysts.

Conclusions:

Most women presenting with PCB will not have cancer. With careful clinical assessment in primary care, the majority could be safely triaged and seen routinely in a Gynaecology clinic setting while those with strongly suspicious features are referred urgently to colposcopy. Closer collaboration between primary care professionals and gynaecologists may help to streamline the referral process, improve confidence in diagnosing benign lesions and minimise patients' anxiety.

P-59 A RARE CASE OF CERVICAL ANGIOMYOFIBROBLASTOMA PRESENTING AS PROLAPSE TO UROGYNAECOLOGY

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North West Anglia NHS Foundation Trust, United Kingdom

A 49-year-old lady was referred to urogynaecology for urgency and prolapse. She was assessed and diagnosed with an anterior and posterior vaginal wall prolapse and a grade 2 uterine prolapse. Her past history included a 4-cm diameter fibroid diagnosed in the posterior cervical wall in 2014 on MRI scan during investigations for menorrhagia She was listed for a vaginal hysterectomy and pelvic floor repair. In theatre she was noted to have a 5-cm mass protruding outside the vaginal introitus. This mass seemed to arise from the posterior cervical wall. The findings were not typical of a fibroid. In view of uncertain pathology and poor access for vaginal hysterectomy, the procedure was abandoned. Biopsy of the lesion showed angiomyofibroblastoma of possible cervical or vaginal origin. MRI showed a large mass arising from the posterior lip of the cervix and protruding posteriorly into the vagina down to the introitus. There was degeneration of the lesion but no invasion into the uterus or vagina and node involvement. As the patient is symptomatic of the lump outside the vagina, the proposed treatment in February 2018 is a total abdominal hysterectomy with ureteric stenting.

Angiomyofibroblastomas are rare benign slow-growing mesenchymal tumours usually of the vulval region and can vary in size. They are not known to metastasise and usually occur in premenopausal women. It is important to distinguish from other mesenchymal tumours of the genital tract including angiomyxomas and cellular angiofibromas which typically need more aggressive management.

This case describes an atypical presentation of a rare condition and highlights the importance of early recognition and appropriate management. MRI scan findings may mimic fibroids or fibromas and the diagnosis is through high index of suspicion and confirmed with histology.

P-60 A RARE CAUSE TO POST-MENOPAUSAL BLEEDING; A GIANT LACERATED CERVICAL POLYP

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Background:

Cervical polyps are common in the female adult population, occurring most commonly in multiparous, pre-menopausal women. They usually present with intermenstrual and postcoital bleeding. They are also a cause to post-menopausal bleeding. They are usually benign, with less than 1% being malignant. They are commonly less than 1cm in size. We report a rare case of a giant cervical polyp in a 70-year-old woman.

Case Report:

A multiparous 70-year-old woman presented with a 1-day history of heavy, fresh per vaginal (PV) bleeding and passing small clots. On questioning for the past few months she had noticed a protruding mass but had been self-treating for presumed haemorrhoids. She disclosed an episode of light post-menopausal bleeding 5 months earlier for which she had not sought medical advice.

Past medical history included a heavy smoker and on regular medications for hypertension.

On examination she had a large 6x4cm lacerated mass protruding from her vagina. She underwent an examination under anaesthetic, which revealed the mass originated from the cervix. The lesion was resected by electro surgery and histology confirmed a large benign cervical polyp. Hysteroscopy was also performed and an endometrial polyp removed. Histology confirmed benign endometrial polyp.

Conclusion:

There are limited cases of giant cervical polyps reported in literature. Though all have been reported as benign, their size, clinical appearance and symptoms can mimic a neoplasm. The treatment is surgical and histological features provide the definitive diagnosis.

P-61 FRANK CERVICAL CANCER IN A 25 YR OLD PATIENT VACCINATED AGAINST HIGH RISK HPV

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North West Anglia NHS Foundation Trust, United Kingdom

A 25 year old nulliparous lady was referred urgently with suspected cervical cancer due to an abnormal looking cervix and excessive bleeding during a smear taking examination. This was her first smear invitation and she had completed a full course of the HPV vaccine as part of the vaccination catch up programme. A diagnostic loop biopsy was taken in view of a 2 cm exophytic lesion on the posterior cervical wall and histology revealed a well differentiated grade 1 adenocarcinoma. CT and MRI showed a mass measuring 1.8 cm confined to the posterior wall of the cervix with no extra cervical disease. This patient had been on the combined oral contraceptive pill and is a smoker. She has been referred to the local cancer centre to plan further treatment options including radical trachelectomy for presumed stage 1B1 cervical cancer.

The Human papilloma vaccine is offered on the NHS to girls between the age of 12 and 16 yrs. With over 100 different types of HPV and around 40 affecting the genital area it is currently impossible to have a vaccination programme that can protect against all types of HPV infection. However, types 16 and 18 are the most common causes which make up over 70% of cervical cancer. For these reasons the vaccination programme commissioned in the UK uses Gardasil which protects against types 6,11,16 and 18. This case highlights the crucial point that the cervical screening programme is still offered to women who have been fully vaccinated as the vaccination does not cover all types of HPV leaving them susceptible to cervical cancer caused by rarer HPV types. Women and GPs must be aware of the importance of smears despite vaccination status and symptoms and signs of cervical cancer for rapid referral when necessary.

P-62 SENSITIVITY AND SPECIFICITY OF HPV DNA AND MRNA TESTS ALONG WITH LIFESTYLE INFORMATION FOR THE PERSONALISATION/ INDIVIDUALISED MANAGEMENT OF WOMEN ATTENDING A COLPOSCOPY CLINIC

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Objective:

To examine the sensitivity, specificity, PPV and NPV of HPV DNA and mRNA test for the detection of high-grade cervical lesions and investigate whether the addition of lifestyle factors to the results of the DNA or mRNA test can improve the positive predictive value.

Population: Women that attended Academic Colposcopy clinics during 09/2016-12/2017 in 4 Greek cities (Ioannina, Athens, Thessaloniki, Patras) because of abnormal cytology or history of CIN and treatment.

Recorded outcomes:

Colposcopy, Pap test, HPV DNA test, HPV mRNA test (Aptima), histology (if available), lifestyle parameters (smoking, age at onset of sex, number of sexual partners, condom use, vaccination against HPV)

Endpoint: CIN2+/HgSIL

Measured outcomes: Sensitivity, specificity, PPV, NPV

Results:

DNA and mRNA test have comparable sensitivity for the detection of histological CIN2+ (DNA vs mRNA: 84.1% vs 84.9%) or cytological HgSIL (84.2% vs 78.4%). However, mRNA test has much better specificity for histological CIN2+ (DNA vs mRNA: 31.5% vs 83.9%) or cytological HgSIL (53.4% vs 79.6%). The PPV of positive mRNA test AND abnormal cytology/colposcopy for histological CIN2+ is 70% vs 35.7% of positive DNA test AND abnormal cytology/colposcopy. The PPV of positive mRNA test, abnormal cytology/colposcopy AND high-risk lifestyle (as calculated by taking the following parameters into consideration: smoking, age at onset of sex, number of sexual partners, condom use, vaccination against HPV) was 98.3%.

Conclusions:

HPV mRNA and DNA test have comparable sensitivity for the detection of CIN2+, but the former has much greater specificity. mRNA test has also better PPV for CIN2+, while the PPV can rocket to almost 100% with the addition of lifestyle parameters.

P-63 BARRIERS TO CERVICAL SCREENING AND INTEREST IN SELF-SAMPLING: FOCUSING ON WOMEN WHO ACTIVELY DECLINE SCREENING

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Objectives:

Understanding why some women actively decline cervical screening could contribute to tailored intervention development. We explored reasons for non-participation in cervical screening among women who had made an active decision not to go in the future, comparing them with those who intended to be screened but were currently overdue. We also explored interest in HPV self-sampling and whether this method of screening addressed any specific barriers.

Methods:

Data were collected as part of a larger survey of non-attendance at cervical screening. Home-based computer-assisted interviews were carried out with 3112 screening-eligible women in Britain. Women reported their intention to go for screening when next invited, endorsed pre-defined barriers to screening and indicated their interest in HPV self-sampling.

Results:

Of the women who completed the survey, 543 were included in the present analysis. Of these 78% (n=426) were currently overdue but intended to be screened in the future and 22% had made an active decision not to be screened (n=117). Women who had made an active decision not to be screened were more likely to endorse the barrier 'I have other more important things to worry about' and to perceive screening to be of low relevance based on their sexual behaviour. Most participants (70%) indicated that they would be interested in HPV self-sampling. Interest in self-sampling was greater among those who reported having had a bad experience of screening in the past, were too busy or embarrassed to attend or would not want a man to carry out the test.

Conclusions:

Women who had made an active decision not to attend screening felt it was of low relevance to them and that they had more important things to worry about. Shifting the perceived cost-benefit ratio for these women by offering HPV self-sampling might increase screening participation in this group.

P-64 INTER-OBSERVER AGREEMENT ON INTERPRETATION OF DUAL STAINED P16/KI-67 SAMPLES IN A HPV POSITIVE PRIMARY SCREENING POPULATION

Christine White[1,2], **Roisin O' Brien[2]**, Padma Naik[2], Stephen Reynolds[1,2], Trinh Pham[2], Loretto Pilkington[2], Imogen Sharkey Ochoa[1,2], Carrie Powles[3], Fiona Wright[3], Jacqui BarryOCrowley[2], Prerna Tewari[1,2], Sharon O'Toole[1], Charles Normand[1], Linda Sharp[4], Grainne Flannelly[3], Cara Martin[1,2], John O' Leary[1,2]

[1]Trinity College Dublin, Ireland, [2]Coombe Women and Infant's University Hospital, Ireland, [3]CervicalCheck, National Screening Service, Ireland, [4]Newcastle University, United Kingdom

Introduction:

Dual staining for p16/Ki-67 is recognised as a potential triage test for women with a HPV positive primary screening test. This study examines the reproducibility of p16/Ki-67 dual stain interpretation among three slide reviewers.

Methods:

In partnership with CervicalCheck, The National Cervical Screening programme, CERVIVA are undertaking a longitudinal observational HPV primary screening study which is evaluating different triage strategies for management of a HPV-positive primary screening test. As part of this ongoing study dual staining for p16/Ki-67 (CINtec PLUS) was performed on 841 primary screening samples that tested positive for HPV (cobas 4800 HPV test). Three reviewers, including two cytopathologists and one individual with advanced training and experience with p16/Ki-67, independently reviewed a subset of 245 cases. A sample was deemed positive by the presence of one or more dual stained cells in a specimen. The results were compared to determine inter-observer agreement.

Results:

The proportion of cases interpreted as positive by each reviewer ranged from 29.1%-43.8%. There was consensus agreement between all three reviewers for a positive or negative result in 77.0% of cases. Agreement between reviewer 1 and 2 was 79.7% (Kappa 0.538; 0.420-0.685), reviewer 1 and 3 was 78.7% (Kappa 0.558; 0.431-0.685) and reviewer 2 and 3 was 81.6% (Kappa 0.605; 0.478-0.733). Disagreement amongst reviewers was most commonly seen in cases with weak staining intensity for p16 or Ki-67 and samples with a very low number, 1-2 cells, of dual positive cells present on the entire slide. Discordant results will be subject to pathologist review.

Conclusion:

These preliminary findings show that the reproducibility of interpreting p16/Ki-67 dual stained slides is moderate between three reviewers. These findings suggest that with adequate training dual staining for p16/Ki-67 can be incorporated in to routine cytology laboratories.

P-65 THE BURDEN OF VAGINAL AND VULVAL CANCER ON THE SECONDARY CARE SYSTEM IN ENGLAND (2009-2015)

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Introduction:

Human papillomavirus (HPV) infection is a well-known cause of anogenital lesions, including some vaginal and vulval cancers and pre-cancers. While the incidence of vaginal cancer in the UK appears to have remained relatively stable since the late 1990's, there is evidence to suggest that vulval cancer incidence rates have increased by more than 10% over the last decade. The objective of this study was to quantify the secondary care costs of these cancers in England between 2009 and 2015.

Methods:

Inpatient and outpatient records were extracted from the Hospital Episode Statistics (HES) database to estimate the number of patients treated for pre-cancerous and invasive vaginal and vulval lesions in England between 2009/10 and 2014/15. These data were linked to NHS reference costs to estimate the costs of treatment, at 2016 prices.

Results:

The total cost of treatment for pre-cancerous and invasive vaginal and vulval lesions over the entire study period was estimated to be over £85 million. This equates to over £14 million per year on average. Inpatient care accounted for 95% of total costs. Vulval cancer was associated with the highest burden, accounting for over a third of all inpatients and outpatients, and an estimated 60% of total costs. Inpatient numbers and costs increased over time for vulval carcinoma in situ (11.4% increase in patient numbers and 7% increase in inpatient costs from 2009/10 to 2014/15), and vulval dysplasia (10.3% and 3.7% increases respectively over the same period).

Conclusion:

Vaginal and vulval cancers and pre-cancers place a significant burden on the UK health care system, which in the case of vulval lesions, may be increasing. Routine screening for these cancers is not likely to be cost-effective, but alongside education, the adolescent HPV vaccination programme may help to reduce this burden in years to come.

P-66 CERVICAL CANCER INCIDENCE TRENDS IN IRELAND FOLLOWING THE INTRODUCTION OF CERVICALCHECK THE NATIONAL SCREENING PROGRAMME

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This year CervicalCheck - the National Cervical Screening Programme in Ireland will mark ten completed years of providing free screening to 1.1 million women aged 25-60 years. A joint project with the National Cancer Registry of Ireland aimed to document the progress in achieving programme aims of reducing cervical cancer incidence in Ireland.

In 2017, CervicalCheck reached a key objective with 80% of women in the target population screened within five years. Coverage rates have always been higher for younger women when compared to older women with figures in November 2017 of 91 per cent of women aged 25-29 years compared to only 70 per cent of women in the 55-59 year old group. Looking at the cancer rates according to the age, the highest incidence rate was 21.2 per 100,000 for women aged between 40 and 44 years while two further peaks were seen in women aged 55-59 years and 75-79 years.

The incidence of invasive cancer of the cervix increased significantly between 1999 and 2010 with an annual percentage change (APC) of + 3.9% (95%CI: 1.6%, 6.2%). Since 2010, a significant decline was identified (APC) of -7.0% (95%CI: - 12.4%, -1.2%). This drop was mainly seen in squamous cancers while adenocarcinoma rates continued to rise at a rate of 2.3% annually.

Cervical cancer rates were examined according to an area–based deprivation category.The most deprived areas had very clearly the highest burden of cervical cancer incidence, and this has remained constant over time.

These results suggest that CervicalCheck is having a positive effect on cervical cancer incidence in Ireland. Improving uptake rates in older women and in areas of low uptake remains a real challenge. It will be interesting to see whether the HPV vaccine will have any impact on the socio-economic distribution of cases in the future.

P-67 HPV GENOTYPE PREVALENCE AFTER LLETZ TREATMENT - TIME TO KNOW YOUR SUBTYPES?

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Persistence of high risk HPV infection in cervical cells is a necessary step in the pathogenesis of precancerous and cancerous cervical change. The likelihood of persistence is influenced by age, HPV genotype, detection method, treatment method and testing interval. Persistent HPV infection after treatment is an independent risk factor for recurrent CIN, however only type-specific HPV persistence predicts recurrent/residual disease. In the UK cervical screening is currently based on cytology with reflex testing for high risk (HR) HPV types. Seven HPV testing platforms are currently approved for use by the regulatory body, of which only two give results by genotype. To ascertain whether certain HR-HPV types were more likely to be present after LLETZ treatment we collected data from post-treatment test of cure samples over a six month period (n=174). We identified a total of 191 HPV infections, of which 52 (27%) were HPV 16, 8 (4.2%) were HPV 18 and 131 (68.6%) HPV O (Other). Twenty women were found to be carrying more than one HPV type (11.8%). 81% were HR-HPV positive with negative cytology. The prevalence of HPV 16 was similar to that found in the ARTISTIC trial although the HPV 18 rate was lower (4.2% vs 12%). Greater than twelve months treatment/test interval was associated with a rise in HPV 16 and 18 infections whilst the incidence of HPV 'other' dropped. The high number of infections with HPV 'other' overall raises questions about the importance of identifying these subtypes individually, especially as the HPV vaccine begins to affect HPV 16/18 prevalence. Persistent infection with any HPV genotype, but particularly HPV 16, could be used as a prognostic marker to guide follow-up and treatment when primary HPV screening is introduced, however further research is needed to guide the best management of these persistent infections.

P-68 INCIDENCE OF CERVICAL AND OTHER CANCERS AFTER LOCAL TREATMENT OF CIN: A SYSTEMATIC REVIEW AND META-ANALYSIS

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Background:

Local CIN treatment is highly effective in preventing recurrent CIN and invasive disease. Studies have documented an increased incidence of cervical cancer after CIN treatment. Our aim was to conduct a systematic review and meta-analysis on the risk of developing or dying from cervical, other HPV-related and all cancers after CIN treatment.

Methods:

We searched electronic databases for studies reporting on cervical cancer and other cancer incidence or mortality after any local treatment of CIN with nationwide register-based follow-up. Independent reviewers extracted the data and performed quality assessment. Pooled risk ratios were calculated with a random effect model and inter-study heterogeneity was assessed with I2 statistics.

Results:

We found 15 studies meeting the inclusion criteria. The pooled risk ratio for incidence of cervical cancer after any local treatment of any grade of CIN was significantly higher than the general population (RR 2.83, 95%CI 2.25-3.56, 7 cohorts, 1,279 cancers / 298,646 treated women). The risk was increased especially among women over 50 at the time of treatment (RR 8.81, CI 5.50-14.12). The risk decreased with increasing follow-up time, but was still elevated after 20 years of initial treatment. Incidence of other HPV-related genital tract cancer, cancers of vulva, vagina and anus, (RR 4.87, CI 3.07-7.74, 2 cohorts, 321 / 86,395) as well as mortality from cervical/vaginal cancer (RR 4.26, CI 1.00-18.18, 357 / 150,955) were increased.

Conclusions:

Women treated for CIN have increased incidence of not only cervical, but also of other HPV-related female genital tract cancers compared to the general population for over 20 years. The risk is highest among women treated over the of 50. Our findings suggest that a prolonged period of intensive post treatment follow-up may be justified in this high-risk population.

P-69 INCIDENCE OF CERVICAL CANCER IN WOMEN PRESENTING TO COLPOSCOPY AT LOUTH COUNTY HOSPITAL

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Background:

The incidence of cervical cancer in Ireland is 13 per 100,000 women. Cervical screening programs aim to reduce the incidence and mortality of cervical cancer by the detection and effective treatment of pre-cancerous lesions. The objective of this study was to identify the incidence of cervical cancer in women referred to colposcopy over a period of 8 years and to describe the risk factors associated with the development of cervical cancer in this cohort.

Methods:

A retrospective study (n=8736) was conducted between 01/01/2010 and 31/12/2017 in the Regional Colposcopy Clinic of Louth County Hospital, Ireland. Relevant information was retrieved from the MediScan Information system.

Results:

Of the 8736 women, 96 (1.1%) were diagnosed with cervical cancer. The median age of the women was 39 years. 25% of women who developed cervical cancers were nulliparous and nearly 60% had two children or more. Of those 96 women, 60 women were smokers or ex-smokers. 49 women reported no contraceptive usage, while 42% used hormonal based contraception. HSIL/Severe and moderate dyskaryosis were the most common referral cytology. Most of the cancers were microinvasive. The most frequent histological type was squamous cell carcinoma (77%) while adenocarcinoma accounted for 19%.

Conclusion:

Overall our results show that squamous cell carcinoma was the most common cancer. Multiparity and cigarette smoking were the two most common risk factors identified in this cohort. Most of the cases were diagnosed at an early stage, proving the importance of the screening programme in preventing mortality from cervical cancer.

P-70 IS HUMAN PAPILLOMAVIRUS DNA METHYLATION AN ACCURATE DIAGNOSTIC MARKER FOR DETECTION OF WOMEN WITH ABNORMALITIES AT CERVICAL CANCER SCREENING?

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Imperial College London, United Kingdom

Background

The introduction of HPV DNA testing for primary cervical screening aims to improve accuracy but will also increase positive test results. The best policy for triage of HPV-positive women is still unclear. Viral DNA methylation has been proposed as a novel biomarker with encouraging results. Further work is needed to establish whether HPV methylation could form an accurate diagnostic test.

Methods

We undertook a systematic review and meta-analysis to assess the correlation of HPV DNA methylation with disease grade for prediction of high-grade intraepithelial disease (CIN2+). We searched electronic databases MEDLINE, EMBASE and CENTRAL. Studies were eligible if HPV epigenome was analysed, with cytology/histology results available. Data was pooled and analysed using meta-analysis random effects models in STATA.

Results

42 studies were eligible. Methylation of the HPV16 L1 gene showed the greatest correlation with increasing disease grade (Normal:13% (95%CI 0-35); CIN1:38% (95%CI 3-82); CIN2:49% (95%CI 12-99); CIN3:81% (95%CI 22-100); ICC:90% (95%CI 52-100). Pooled estimates were significantly higher in CIN2+ vs. CIN2- (62% (95%CI 27-92) vs. 24% (95%CI 7-47), $p<0.0001$). For bisulphite sequencing data, overall pooled estimated odds ratios (OR) (95%CI) for high methylation in the HPV16 L1 gene for CIN2+ vs. CIN2- was 2.15 (95%CI 0.82-5.6), I2 90.6%. For pyrosequencing data, the highest OR was observed at CpG site L1 5602 (36.8, 95%CI 8.8-153). Pooled sensitivity and specificity for detection of CIN2+ was 0.62 (95%CI 0.46-0.76) and 0.77 (95%CI 0.61-0.88).

Conclusions

HPV16 L1 gene methylation levels correlate with CIN progression, with significantly higher methylations levels observed in CIN2+ vs. CIN2-. Sensitivity and specificity is variable by CpG site and study heterogeneity exists. This meta-analysis suggests that HPV methylation could be an accurate marker of high grade disease, but the most discriminatory genes must be identified. Its role as a diagnostic test to triage HPV-positive women warrants further investigation.

P-71 ATTITUDES TO CERVICAL SCREENING AMONG OLDER WOMEN FROM HARD-TO-REACH GROUPS

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Objectives:

Cervical screening attendance among 50-64 year olds is suboptimal. In addition, women from lower socio-economic status (SES) and ethnic minority backgrounds are less likely to attend screening, but these 'hard-to-reach' groups are often underrepresented in research. The current study aimed to understand why some older women from hard-to-reach groups have decided not to continue going for screening, having previously taken part.

Methods:

Six focus groups were carried out with women aged 50-64 years from lower SES or ethnic minority backgrounds (total n=38). Focus group discussions were recorded, transcribed verbatim and translated where necessary. Data were analysed using Framework Analysis.

Results:

All women had heard of cervical screening but many had poor knowledge. Women's reasons for non-attendance were wide-ranging and included discomfort and embarrassment, negative perceptions of health professionals, worry about or lack of trust in the results, concern about the procedure and extremely negative previous experiences. Some women reported not having received invitations to be screened. High-order themes were broadly similar for ethnic minority and lower SES women, but exposure to particular culturally-specific beliefs and experiences influenced some of the subthemes.

Conclusions:

Information designed specifically for older women should ensure they understand the purpose of screening and its relevance to them. In particular, it is important to communicate the benefits of screening between 50-64 years for reducing future risk of cervical cancer in older age. Finding ways to encourage women, particularly those from ethnic minority groups, to talk about cervical cancer may help to increase engagement with screening and the decision to attend. Emphasising changes to the programme that have made the experience less uncomfortable, and improved sample-taker awareness of how women feel, may help to allay concerns about the procedure.

P-72 WHAT IS THE VALUE OF ROUTINE MICROBIOLOGY IN WOMEN ATTENDING COLPOSCOPY?

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Colposcopy services provide an opportunity for healthcare promotion. The incidence of sexually and non-sexually transmitted diseases has also been increasing over the past 20 years. We aimed to evaluate the feasibility of sexual health screening using vaginal swabs at the time of colposcopy examination in this population.

We conducted a retrospective review of all women attending the Colposcopy service of a hospital in the south of Ireland over a 6-year period. Through interrogation of the anonymised departmental database, we identified those who had consented to opportunistic screening via high vaginal (HVS) and endocervical swab (ECS) testing and conducted a quantitative analysis on this data.

During the study period, 7156 women attended colposcopy services, with 3460 (48.3%) new referrals. 2672 (37.3%) of all women (and 2565 (74.1%) of new referrals) consented to screening. A HVS was performed in 2629 (98.3%) women and 2381 (89.1%) had a ECS performed. Bacterial vaginosis (BV) was detected in 131 (5.0%) women, with 362 (13.8%) cases of Group B Streptococcus (GBS) and 324 (12.3%) incidences of Candida. 34 (1.4%) tested positive for Chlamydia Trachomatis (CT). 32 women had concomitant histology performed, with only 28.1% (n=9) having intraepithelial neoplasia. Smoking status was recorded in 380 cases. 72 (18.9%) accepting referral to cessation services. Of those positive for CT, 31.5% (n=6) were smokers, similar to non-smokers (n=348, 27.4%, p=NS)

There is a low rate of CT positivity in this cohort of women attending colposcopy services, which is lower than other studies in a similar setting (Hassan et al, 2015). This may be due to geographic distribution or other characteristics of the patient cohort. Higher rates of GBS and BV positivity could potentially have implications for women of childbearing age, and communication must be optimised to ensure that this screening is not fortuitous.

P-73 CERVICAL INTRAEPITHELIAL NEOPLASIA IS ASSOCIATED WITH AN ALTERED VAGINAL MICROBIOME AND INNATE IMMUNE DISRUPTION

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Introduction:

High diversity vaginal microbiota (VMB) and a proinflammatory environment has been associated with HPV infection and CIN. The innate immune system and antimicrobial peptides (AMPs) may be a key factor in the natural history of the disease and may be affected by the VMB.

Objectives:

Investigate changes in VMB composition and expression of Human Beta Defensin-1 (hBD-1), Secretory Leucocyte Protease Inhibitor (SLPI) and inflammatory cytokines in women with different CIN grades and normal controls.

Methods:

Population: Non-pregnant, premenopausal women attending the colposcopy clinic in London, UK with cytological +/- histological disease classification.

Analysis: Vaginal swab samples used for 16s rRNA bacterial sequencing to assess VMB composition and enzyme-linked immunosorbent assay (ELISA) to determine hBD-1, SLPI, IL-1β and IL-8 levels.

Results:

A total of 232 women were included; 34 normal, 81 low-grade CIN, and 117 high-grade CIN. Lower levels of Lactobacillus spp. with increased bacterial species diversity, were seen with increasing disease severity. A lactobacillus-depleted high diversity VMB was observed twice as frequently in women with high-grade disease (28%) compared to controls (14%). There was a trend for higher levels of pro-inflammatory cytokines; IL-1β and IL-8 and AMPs; hBD-1 and SLPI with increasing disease severity. In women with HSIL, IL-1β and IL-8 were significantly higher compared to healthy controls (p=0.0003 and p=0.0070 respectively). Similarly, hBD1 and SLPI levels were significantly greater in women with HSIL compared to controls (p=0.0129 and p=0.0308 respectively).

Conclusions:

Lactobacillus spp. are thought to protect the female reproductive tract from pathogens, including viruses and the lower levels observed with increasing disease severity, along with higher levels of pro-inflammatory cytokines may play a role in disease outcomes. AMPs are known to be overexpressed in several cancers, and therefore higher levels may have a deleterious effect due their ability to facilitate tissue remodeling that is required for carcinogenesis.

P-74 PREVALENCE OF CERVICAL INTRAEPITHELIAL NEOPLASIA (CIN) IN BANGLADESH

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Introduction:

Cervical cancer is the most common genital tract cancer and an important cause of death from cancer among Bangladeshi women. The government of Bangladesh (GOB) has introduced Visual Inspection of Cervix with Acetic Acid (VIA) method for cervical cancer screening at the national level. VIA positive cases are being referred to the colposcopy clinics at higher facilities, where evaluation and management is carried out.

Objectives:

To detect the prevalence of Cervical Intraepithelial Neoplasia (CIN) among Bangladeshi women.

Methodology:

This cross-sectional, population-based study was carried out at twenty randomly selected sub-districts of twenty randomly selected districts in five divisions of Bangladesh by the Department of Obstetrics and Gynaecology at Bangabandhu Sheikh Mujib Medical University (BSMMU) and five Medical College Hospitals (MCHs). Almost equal number of married non pregnant women between 25-55 years of age were randomly recruited from each selected sub-district for colposcopy at sub-district level through temporary arrangement. All histopathology examinations were done at the histopathology laboratory of BSMMU.

Results:

In total, 5549 women were recruited from the study areas between April 2014 and March 2015. According to the colposcopy test, the prevalence of CIN-I was 4.6% and CIN-II/III was 1.1%; on the other hand, histopathology revealed the prevalence of CIN-I and CIN-II/II as 2.6% and 0.4% respectively. Considering histopathology as gold standard, the sensitivity and specificity of colposcopy was 60.0% and 99.1% when CIN-II /III and cancer was considered as disease by both colposcopy and histopathology. If CIN-I, CIN-II /III and cancer was considered as disease in both colposcopy and histopathology, the sensitivity and specificity of colposcopy were 99.4% and 97.1%.

Conclusions:

The prevalence of CIN is low in Bangladesh. All grades of colposcopy diagnosed CIN should be treated and followed-up routinely. Loss of patient follow up would be a particular challenge and needs attention.

P-75 The Impact of HPV vaccination on a high-risk population. How has this impacted on the colposcopy service? Implications for service development models?

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Background:

In Yorkshire, Hull is the most deprived local authority; the third most deprived in England; cervical cancer incidence is above the national average. In 2008, the human papillomavirus (HPV) vaccine was introduced. Vaccine uptake in Hull runs at 80% of eligible girls. Vaccinated women are now eligible for the screening programme.

Aims:

To explore the impact of HPV vaccination on women referred for colposcopy in Hull.

Methods:

Study population: Routine referrals to a colposcopy clinic at Hull Royal Infirmary from September 2015 – November 2017.

A routine medical history was obtained from each woman; in addition, she was also asked if she had received the HPV vaccination.

Standard diagnostic and treatment protocols were followed, irrespective of the vaccination status.

Results:

Data were collected on 389 women

37% of women had been vaccinated; mean age was 24.

CIN was diagnosed in 49% of the unvaccinated group; 30% of the vaccinated group. In the non-vaccinated group, the commonest referral was mild dyskaryosis; mean age of 25. The non-vaccinated women were more likely to be diagnosed with CIN 2/3 (40%). In the vaccinated group the commonest referral was post-coital bleeding, followed by mild dyskaryosis; in this group, CIN 2/3 was detected less frequently (17%). A Pearson's chi-square test of contingencies (with $\alpha = 0.05$) was used to evaluate whether the vaccine was related to not developing any CIN. The chi=square test was statistically significant ($\chi^2(1, N - 389)=15.04$, $p<.001$). One case of microinvasive carcinoma (Stage 1A1) diagnosed in the vaccinated group.

Discussion:

HPV vaccine has reduced the incidence of HG CIN; however there remains a vaccinated cohort susceptible to HPV and cervical cancer. The recent fall in screening uptake is a matter of concern. Strategies to improve the uptake of vaccination and screening need to be pursued at national and local level.

P-76 VALIDATION OF A DNA METHYLATION PANEL FOR THE TRIAGE OF HPV POSITIVE WOMEN IN A HPV PRIMARY SCREENING POPULATION

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Background

The aim of this study is to evaluate triage options for the management of women with a HPV positive primary screening test. Host methylation factors have repeatedly shown to be hypermethylated in cervical cancer/pre-cancer and have the potential to triage women at high risk of cervical cancer. This is part of a larger study within CERVIVA.

Design

In partnership with CervicalCheck, The National Cervical Screening programme in Ireland, CERVIVA are undertaking a longitudinal HPV primary screening study evaluating several triage strategies for managing HPV-positive primary screening tests. We are recruiting 13,000 women attending for routine smear tests. HPV testing is performed using the Cobas HPV DNA test. HPV positive samples will be tested for a panel of methylation specific biomarkers [CADM1-M18, MAL-M1, hsa-mir-124-2] using Quantitative Methylation-specific PCR. Here we present a validation panel of 200 cervical cytology samples with confirmed histology for defining clinically relevant cut-off points.

Results

Of the 200 samples selected for the validation panel 187 have been analysed to date. The panel comprises of HPV positive and histology confirmed CIN1 (n=50), CIN2 (n=34), CIN3 (n=50) and HPV negative with no abnormality detected (NAD) (n=50). The combined panel shows statistically different methylation scores for all markers between CIN3 and NAD (CAD-M1, MAL-M1, hsa-mir-124-2 (p=0.015, 0.016, <0.001). There is also a statistical difference in methylation patterns between CIN1 and CIN3 samples (p= 0.018, 0.018, 0.001). Defined cut-offs will be determined through ROC analysis on completion of the validation panel.

Conclusion

Currently the combination of CADM1-M18, MAL-M1 and hsa-mir-124-2 shows promise in differentiating CIN3 from normal cells as well as CIN1 from CIN3. Once this validation panel is complete ROC analysis will determine cut-off values to measure methylation status of HPV positive women. Methylation status will be assessed based on longitudinal follow up data collected over two screening rounds.

P-77 TO LOOK AT WOMEN REFERRED TO THE COLPOSCOPY CLINIC WITH AN ABNORMAL LIQUID BASED CYTOLOGY (LBC) RESULT HAVING BEEN PREVIOUSLY VACCINATED AGAINST HIGH RISK-HUMAN PAPILLOMA (HR-HPV) VIRUS AS PER THE NATIONAL IMMUNISATION PROGRAMME

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Aim:

The aim of the audit was to evaluate patients referred to colposcopy having previously been vaccinated against HPV.

Methods:

Retrospective audit data collected from hospital electronic database, between 19/12/2016- still on-going. Total number of cases so far are 83, we have analysed 25 so far for the purpose of this abstract and should have the full data on the 83 patients ready in time for the conference.

Results:

From a 30 % subsection of the total audit population (25/83), all of which were vaccinated against HR-HPV, 68% attended the colposcopy clinic with borderline/low grade dyskaryosis positive for HR-HPV, 32% had high grade dyskaryosis. For 96%, this was their first LBC. 44% of this population had a normal colposcopy and were discharged to primary care for follow-up, 52% had cervical biopsies, and 24% ended up having LLETZ (large loop excision of the transformation zone) treatment for high grade CIN, one of these had high grade CGIN. None of the patients were offered a see and treat approach.

Conclusions:

Despite having been vaccinated against the HR-HPV virus, 68% women still presented to the colposcopy clinic with borderline/mild dyskaryosis, 32%presented with high grade dyskaryosis and 24% ended up needing a LLETZ treatment to the cervix.

References:

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P-78 HPV TESTING IN FEMALE MULTIPLE SCLEROSIS PATIENTS PRIOR TO COMMENCEMENT OF ALEMTUZUMAB THERAPY

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Background

Alemtuzumab, an anti-CD52 monoclonal antibody, is used to treat adults with relapsing-remitting multiple sclerosis (MS). Alemtuzumab lyses lymphocytes, leaving patients immunocompromised. Such women may be at increased risk of persistent HPV infection and associated neoplasia. The licence for Alemtuzumab recommends annual HPV testing. This is not currently recommended by the national cervical screening programme, and the results of such screening have not been previously reported.

Methods

Prospectively collected electronic records were searched for results of attendances, smears and HPV tests for a sequential cohort of female MS patients due to receive Alemtuzumab at The National Hospital for Neurology and Neurosurgery, London. Prior smear histories were obtained from Open Exeter. Screening coverage and proportions of HPV-positive patients were compared with national data.

Results

No prior smear history was available on 6/56 (11%) women. Prior to attendance, 2/50 (4%) evaluable women had never had a smear, and 11/50 (22%) were overdue their current smear. 14/50 (28%) had an abnormal smear history and 1 (2%) had prior CIN3. Following attendance, 6/56 (11%) were HPV-positive, of which 1/6 had an abnormal smear (mild), but has so far failed to attend colposcopy. Of those with an abnormal smear history 3/14 (21%) were HPV-positive. Screening coverage and the proportion that was HPV-positive was similar to general population data.

Conclusions

There was a low rate of prior high-grade disease in female MS patients, and a low rate of current HPV-positivity in those with an abnormal smear history. There was no obvious difference in coverage/HPV-positivity in MS patients compared with the general population. MS patients selected for Alemtuzumab therapy do not appear to be at increased risk of HPV-positivity and have a low prevalence of high-grade disease. Follow-up of a large HPV-positive cohort is required to assess the risk of developing high grade dysplasia after Alemtuzumab treatment.

P-79 INCREASED DETECTION OF HIGH GRADE GLANDULAR INTRAEPITHELIAL NEOPLASIA (HG-CGIN) BY ELECTRICAL IMPEDANCE SPECTROSCOPY (EIS)

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Objective

To establish the performance of colposcopy with EIS (ZedScan) in women referred with abnormal glandular cytology or high grade glandular intra-epithelial neoplasia (HG-CGIN). To evaluate the electrical impedance spectra associated with HG-CGIN.

Methods

A prospective cohort study of women undergoing both colposcopic and ZedScan examination as part of the investigation of an abnormal cervical cytology result.

Results

42 women were referred with cytology showing either glandular neoplasia (16), borderline changes in endocervical cell (26). 25 were found to have CGIN, of whom 23 had HG-CIN/HG-CGIN. A further 10 women were found to have CGIN (9 had HG-CGIN) on biopsy or LLETZ following investigation of an abnormal squamous cytology sample or clinical indication. There were 18 cases of pure HG-CGIN. 89% of HG-CIN/HG-CGIN was detected by a colposcopic impression of high grade disease and a positive ZedScan result. 90% of pure HG-CGIN was detected by a colposcopic impression of high grade disease and a positive ZedScan result. Four cases of pure HG-CGIN were detected only by a positive ZedScan result. EIS data for pure HG-CGIN is different from normal glandular tissue but similar to HG-CIN.

Conclusion

EIS can separate HG-CGIN from normal glandular epithelial. The performance of colposcopy in detection of HG-CGIN has previously been shown to be poor with sensitivity of 10% and 87% having a normal colposcopic impression. ZedScan identified 89% of HG-CGIN cases compared with 72% for colposcopy.

P-81 PREVALENCE OF HPV-RELATED BIOMARKERS - CHLAMYDIA TRACHOMATIS - MYCOPLASMATA AND UREAPLASMATA AMONG YOUNG NULLIPAROUS WOMEN IN CENTRAL GREECE: PRELIMINARY DATA OF A PROSPECTIVE OBSERVATIONAL STUDY

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Background:

Sexually Transmitted Infections (STIs) is a significant global public health issue. HPV infection and can lead to cervical pre-cancer and cancer, while Mycoplasma genitalium (Mg), Mycoplasma hominis (Mh), Ureaplasma parvum (Up), and Ureaplasma urealyticum (Uu) are related to early miscarriages, midtrimester abortions and may pose an increased risk for preterm birth and bronchopulmonary disease in the preterm neonate. In addition Chlamydia trachomatis (Ct), appear to be the leading cause of infertility and pelvic inflammatory disease (PID) in women.

Objectives:

To estimate the prevalence of HPV-Chlamydia-Mycoplasmata and Ureaplasmata infection among young nulliparous women in Central Greece.

Material & Methods

Design:Prospective observational study

Setting:Gynaecology clinic, Larisa Health Centre, Greece

Intervention:An LBC sample obtained in women attended gynaecology clinic and tested for cytology and HPV-related biomarkers including HPV-typing, mRNA E6/E7 of 14HR-HPV types (APTIMA®), as well as common STIs(Ct, Mg, Mh, Up, Uu) using microarrays method (CLART® STIs kit). Demographic, sexual and life-style data were also recorded.

Results:

A total of 336 women have been included to the study so far. The median age of the population was 29.2 years, and just 35% have been vaccinated against HPV. One-hundred-fifty-two women (45%) tested positive for HR-HPV and 27% of them found to have positive E6/E7 mRNA test. Forty percent of the population tested positive for STIs (136/336). One-hundred-sixty-one women (36%) tested positive for Ureaplasmata (Up & Uu), 28/336 (8%) had positive test for Mh and just 1% of the total population were positive for Mg and Ct. Thirty-eight percent (72/192) of the HPV-DNA positive women had subclinical STI infection at the time of recruitment.

Conclusions:

Curable and preventable STIs continue to be a high burden on global health, even though they can be treated and prevented with simple antibiotic cure, and HPV vaccine respectively. Screening for STIs in young populations, could reduce infertility and adverse pregnancy outcomes.

P-82 AUTOMATED HIGH-THROUGHPUT CYTOLOGY USING RAPID EVAPORATIVE IONIZATION MASS SPECTROMETRY (REIMS)

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Introduction:

One in ten women screened for cervical changes will have an abnormal result. Cytological abnormalities can be difficult to manage and often require repeat visits with increased patient anxiety and risk of non-compliance. Furthermore, there is great variability in cytology reporting across cytotechnicians. Here, we investigate whether REIMS could be an automated alternative to assess the presence and grade of cytological abnormality at the bedside.

Material and Methods:

We recruited women with cytological abnormalities and normal controls and collected a liquid based cytology (LBC) cervical smear. Prior to REIMS analysis, 2 mL of sample underwent centrifugation to pellet cells, which were then heated using a carbon dioxide laser and the generated aerosol aspirated to a mass spectrometer. The resulting mass spectra underwent standard processing, with multivariate statistics completed using MetaboAnalyst.

Results:

A total of 105 LBCs (seven normal, 21 HPV changes only, 21 CIN1, 19 CIN2, 19 CIN3 and 18 cervical cancer) underwent REIMS analysis. Successful classification of LBC pellets into 'normal', 'CIN' and 'cancer' using discriminant analysis was shown – providing a platform for developing a classification model for larger cohorts. Separation between 'normal' samples positive or negative for HPV infection was also obtained. The sample size was sufficiently large to allow a classification model for CIN grade to be developed and tested, which demonstrated that REIMS discriminated CIN1/2 from CIN3 with an accuracy of 95%.

Conclusion:

This novel approach signifies an exciting step in translating laboratory-based diagnostics to the clinical setting as a bedside test with instant results. If the use of REIMS in cervical cytology proves to be as accurate in larger cohorts, this has the potential for use in the primary care setting as a rapid low-cost bedside screening tool for cervical cancer that could replace cervical cytology and/or a HPV DNA test.

P-83 INTER-OBSERVER AGREEMENT LEVELS IN COLPOSCOPIC ASSESSMENTS AND STANDARDIZATION WITH DSI

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Objective:

Feasibility study on inter-observer agreement in colposcopic assessments and standardization by dynamic spectral imaging (DSI) and mapping.

Methods:

Three BSCCP-accredited colposcopists reviewed a 3-minute high-resolution image set of acetowhitening and the corresponding DSI map from 57 colposcopy cases. Reviewers (knowing the patients' age and cytology but blinded to histology), described morphology and provided colposcopic impression, DSI map interpretation and biopsy decisions. Agreement levels are assessed by pair-wise kappas.

Results:

All reviewers agreed on impression on six, and all disagreed on 25 cases. The overall accuracy in classifying all cases (between Normal, Low or High-Grade) was 40%, 35%, 44% for the three reviewers, and 78%, 26%, 74% for the cervical intraepithelial neoplasia grade two or worse cases (sensitivity). Pair-wise agreements for impression (Normal/Low-Grade vs High-Grade) were mostly poor, also when cases were stratified according to histology (kappas: 0.080-0.277).

Agreement on morphology was poor, when classifying mosaicism as not-present, fine or coarse the agreement was 77%, 44%, 46% (weighted kappas 0.204, 0.120, 0.204). Notably the highest agreement levels for impression vs morphology were in different reviewer pairs, suggesting that individual judgements vary in their aspects.

When interpreting the acetowhite changes based on DSI as suggestive of a Normal, Low or High-Grade cervix, opinions converged: 80%, 91%, 89% (kappas: 0.507, 0.727, 0.746).

Conclusions:

This preliminary review involving three colposcopists suggests that inter-observer agreement on assessments is poor, yet impression remains an important risk factor considered in assessments and decisions at colposcopy. The DSI map introduces standardization that can lead to improved accuracy.

P-84 A CASE OF LOCAL ANAESTHETIC SYSTEMIC TOXICITY (LAST) AT COLPOSCOPY - THE RECOGNITION AND MANAGEMENT

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A 42 year old lady attended colposcopy for investigation of an abnormal smear. To facilitate tissue sampling, two ampoules of Mepivicaine Hydrochloride 3% (4.4mls) were injected intra-cervically. The patient reported immediate onset of peri-oral tingling, became acutely tachycardic and disorientated. The diagnosis of Local Anaesthetic Systemic Toxicity (LAST) was made.

Local anaesthetic (LA) is used regularly to provide localised analgesia via peripheral nerve blockade in colposcopy practice. Local Anaesthetic Systemic Toxicity (LAST) can occur following the inadvertent administration of such LA agents into the circulation - either via accidental intravascular injection, or by systemic absorption. The prevalence of LAST is reported as 9.8/10 000.

Once in the circulation, LA primarily adversely affects the cardiovascular (CVS) and central nervous systems (CNS). CVS features of LAST may include blood pressure (BP) instability, arrhythmias and risk of asystolic arrest. CNS features include perioral tingling, tinnitus, slurred speech, tremor, disorientation and even convulsions leading to coma. The severity of LAST can be extremely varied – from mild with minimal symptoms, requiring observation only; to life-threatening cardiovascular and neurological instability.

Colposcopists administering LA agents have a responsibility to be aware of the risk of LAST and take precautions to reduce this risk. Both the use of LA and intended procedure must be considered absolutely necessary prior to proceeding. A clinician should consider reduced dosing in patient populations at increased susceptibility to LAST. Other risk-reduction measures recommended include: maintaining communication with patients throughout LA administration to allow early detection of adverse effects; aspiration prior to slow injection; and using the lowest effective dose. All clinicians using LA must be able to recognise the onset of LAST; be competent in advanced life support; and know when and how to administer intra-lipid emulsion (ILE) as a life-saving measure for cases of severe LAST in accordance with national guidance.

P-86 MIMICS OF CERVICAL CANER

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In everyday practice, benign lesions on the cervix such as Nabothian Follicles or polyps on the cervix are common place (Manek, 2015).

However, if cervical screening smear takers notice a cervical abnormality suggesting possible malignancy, the woman need to be referred for gynaecological examination urgently within two weeks (NHSCSP, 2016).

In 2015, There were around 3,100 new cervical cancer cases in the UK (Cervical Cancer UK, 2017). During a colposcopic examination care must be taken not to overlook invasive disease particularly if there is a large, complex lesion with raised irregular surfaces and atypical vessels (NHSCSP, 2016). Despite initial clinical suspicion some benign conditions of the cervix may mimic that of cervical cancer.

Three clinical case studies from one Teaching hospital have been chosen to illustrate the more unusual benign mimics of cervical cancer.

1) Florid Cervical endometriosis
2) Cervical Vasculitis
3) Glandular Hyperplasia

This poster presentation will discuss the challenges in diagnosis when suspicion is raised during the colposcopy examination. The poster will explore the histological clues and patterns in each of the clinical cases compared to those of invasive and early invasive lesions on the cervix.

P-89 ADVANTAGES OF A NURSE-LED TELEPHONE RESULTS CLINIC FOR ACHIEVING KC65 (part D) TARGETS

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WHH has been running an efficient nurse-led telephone results clinic for over 15 years to achieve the standards for turnaround time for notifying patients and GP of test results in colposcopy. It provides a personal approach to patients with the opportunity to discuss results with audited high satisfaction scores. It reduces DNA rates to clinic and facilitates management of the failsafe protocol.

The patient's telephone contact details are logged when she attends for colposcopy investigations and a scheduled results appointment time is made to inform her of the results. There are two evening clinics per week with 10 minute appointment slots staffed by nurses in the colposcopy team. One is a single nurse clinic (17 patients) and the other a double nurse clinic (34 patients). Administrative support is provided for letters and logging outcomes which generates future appointments.

The KC65 targets remain challenging, part D requires 100% of results to be communicated to the patient within 8 weeks for standard practice and 90% within 4 weeks . We looked at our KC65 (part D) outcomes for the QA year 2016-2017

Results:

100% within 8/52 (standard practice), 100% within 4/52 (best practice) Warrington were actually were able to achieve 60% within 2/52 which exceeds the best practice standard.

The DNA was rate 3.03%. If patients are not contactable on the initial telephone consultation a second attempt will be made. If unable to be contacted a letter will be sent.

Discussion:

There are a number of models for communicating results to patients and GPs. The time period can be dependent on laboratory service, demand and efficiency; communication from the laboratory to the colposcopy clinic then onwards to the patient and GP. We found that our telephone results clinic greatly facilitates the process for our service.

P-90 ACCEPTABILITY OF THE HUMAN PAPILLOMAVIRUS (HPV) VACCINE AMONG IRISH ADOLESCENTS

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Background

Human papillomavirus (HPV) infection causes benign, pre-cancerous and malignant disease of the reproductive and oropharyngeal tracts, as well as anogenital warts and recurrent respiratory papillomatosis. However, cervical cancer, comprising 84% of all HPV-related cancers, remains the priority for HPV immunisation and prevention is best achieved through the vaccination of girls, prior to sexual debut. The impact of the vaccine has been most significant in countries where high vaccine coverage has been achieved: in Scotland, there has been a 90% reduction in HPV infections in those vaccinated; pre-cancerous growths of the cervix have been reduced by more than 50% in Australia, Sweden and Scotland and; in Australia, the vaccine has prevented one in every two new cervical cancer cases. All national and international scientific and regulatory bodies recommend HPV vaccination. In spite of the excellent safety, efficacy and effectiveness profiles of the vaccines, coverage rates remain sub-optimal in many countries, including Ireland, where national uptake of the vaccine for the 2016-17 academic year was 51%. Therefore, the objective of this study is to determine the acceptability of the HPV vaccine in a population of female adolescents.

Methodology

Ethical approval was obtained. A topic guide based on the Theoretical Domains Framework (TDF) was developed. Female adolescents were recruited to participate in focus groups through purposive sampling of post-primary schools, youth groups and education centres across Cork and Kerry. Data collection is ongoing: 8 focus groups have been completed, compiling the opinions of 51 adolescents. Data analysis will be staged: stage one will involve a framework analysis using pre-defined coding categories (TDF domains and potential intervention components) and stage two will involve a thematic analysis within each domain. These domains will be mapped to associated Behaviour Change Techniques (BCTs), to include as components of an intervention to improve HPV vaccine uptake.

P-91 HPV KNOWLEDGE AND PERCEIVED RISK OF CERVICAL CANCER AMONG WOMEN TAKING PART IN THE PRIMARY HPV TESTING PILOT IN ENGLAND

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UCL, United Kingdom

Objectives:

The NHS Cervical Screening Programme encourages women to make an informed choice about participation. The planned move from cytology to primary HPV testing in 2019 will mean all women taking part in screening receive an HPV result and should be aware of this before taking part. Poor understanding of HPV-positive results can be associated with anxiety and confusion. As part of the psychological evaluation of HPV primary testing in England, we explored HPV knowledge and perceived risk of cervical cancer among women with varying HPV and cytology results.

Methods:

Women (n=1,132) were recruited from five NHS Trusts where HPV primary screening is being piloted. They completed a postal survey approximately two weeks after receiving their screening results. HPV knowledge, confidence in understanding test results, and perceived risk of cervical cancer were compared across six groups with different HPV and cytology results (including a control group with normal cytology and no HPV test) using ANOVA and Games-Howell post-hoc tests.

Results:

HPV knowledge was higher in women with a current/previous HPV-positive result compared with HPV-negative women or those not tested for HPV (Welch's $F(5, 361.9)=25.42, p<.001$). Women with HPV were less confident that they understood their screening results than other groups (Welch's $F(5, 394.4)=17.9, p<.001$). Despite the fact that the different HPV-positive groups varied in their risk of cervical cancer (due to cytology results or HPV persistence), perceived risk did not differ between the HPV-positive groups (Welch's $F(5, 398.4)=51.3, p<.001$).

Conclusions:

Lower knowledge in HPV-negative groups suggests women may only seek information about HPV following a positive test result, rather than making a fully informed choice before taking part. Despite having greater knowledge, women with HPV were uncertain about the meaning of their result which may lead to inaccuracies in their perceived risk of cervical cancer, and could be associated with adverse psychological sequalae.

P-92 EARLY ENDOMETRIAL CANCER IN A MIGRANT WORKER SAVED BY COLPOSCOPY CLINIC REFERRAL FOR HIGH GRADE DYSKARYOSIS/ ? INVASIVE SQUAMOUS CERVICAL CANCER ON CYTOLOGY - A CASE REPORT

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We report a case of a non-English speaking immigrant who was diagnosed with early onset of endometrial cancer from an opportunistic pipelle biopsy taken when she was referred to colposcopy clinic.

A 55 year old lady Polish factory worker was urgently referred to our colposcopy clinic. Her cytology showed high grade dyskaryosis/ ? invasive squamous carcinoma. She attended our clinic with an English-speaking Polish interpreter . Although she had been living in the UK for 7 years, she had not had a smear test for 20 years. On system enquiry, she had been having irregular menstrual bleeding for 1 year. She smoked 5 cigarettes daily. She was sexually inactive. Her body mass index was 27.

On speculum examination, cervix looked normal. On colposcopy examination, squamous columnar junction was not visualised but Schiller test was positive. She had a LLETZ in view of abnormal cytology result and unsatisfactory colposcopy. Endometrial pipelle biopsy was also obtained due to abnormal vaginal bleeding.

A few weeks later, histology from LLETZ confirmed CIN 3 with all margins excised.

Endometrial biopsy confirmed severe atypical endometrial hyperplasia. Well differentiated endometrial carcinoma however could not be excluded. Consequently she underwent laparoscopic hysterectomy and bilateral salpingoopherectomy. Histology confirmed FIGO Grade 1 Stage 1a endometrioid endometrial carcinoma.

This case demonstrated the importance of taking relevant history and investigations in all patients, especially in migrant workers. Studies have shown delayed cancer diagnosis and worse outcome in migrant and ethnic minorities when compared to the native population. Should our patient have not attended her smear test or colposcopy clinic appointment or the colposcopist have failed to obtain an endometrial biopsy, her clinical prognosis could have been very poor.

P-93 PCB MANAGEMENT: 2WW OR NOT 2WW? THAT IS THE QUESTION.

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Introduction

Current NHSCSP guidelines recommend women presenting with symptoms of cervical cancer (including PCB) must be seen within two weeks of referral. NICE 2015 guidelines removed PCB referrals from its document 'Suspected Cancer: recognition and referral.' This study aims to clarify whether it's time for the BSCCP to update Document 20 in line with NICE guidance.

Methods

Retrospective cohort study with interval analysis 1/6/14 – 31/3/17 performed at the Jessop Wing Colposcopy Unit, Sheffield. UK

Results

1450 women were seen.

- 99% women referred with abnormal cervix had normal findings.
- Risk of low-grade CIN in the referred population = 0.3%
- Risk of high-grade CIN in the referred population = 0.6%
- Risk of HGCGIN in the referred population = 0.1%
- Need to see 144 women to detect one diagnosis of high-grade intraepithelial neoplasia.
- Cervical cancer detected in 0.2% of the referred population; and 3% of the biopsied referred population.
- Need to see 483 women to detect one diagnosis of cervical cancer.
- One woman referred with PCB / IMB was found to have, cervical adenocarcinoma, detected at colposcopy. Of two women referred with abnormal cervix, one have an SCC cervix; the other a neuroendocrine tumour, both detected at colposcopy.

Conclusion

Point prevalence of PCB is as high as 9% and genital tract malignancy remains an uncommon cause of bleeding at any age. Our study demonstrated that of 1450 patients referred on a 2WW basis, only 1.3% were found to have high grade CIN, CGIN or invasive disease.

The remaining 98.7% of the referred patients had normal or low risk findings. These results are in keeping with NICE guidelines and support the move to change the NHSCSP guideline.

P-94 THE ZedScan Device – EVALUATION AND INTEGRATION IN TO THE COLPOSCOPY SERVICE AT THE BIRMINGHAM WOMEN'S HOSPITAL

Jennifer Byrom

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Introduction

The variation in the reported performance for colposcopy is high with the average sensitivity of colposcopy to distinguish between early and later stage pre-malignant lesions reported as around 55%. The ZedScan is a new adjunct to colposcopy, using electrical impedance spectroscopy, to provide a real time objective assessment of cervical tissue and supports more individualised patient management.

Results

Since 01/12/16 I have evaluated the ZedScan device in my colposcopy clinics. The data produced has been analysed by Zilico and the results show (see figure 1):

- 260 cases completed (127 matched and analysed)
- Increased detection of HG CIN by 21%
- Increased PPV overall of colposcopy to 83% (from 78%)
- ZedScan alone PPV greater than colposcopy alone (ZS 95%)
- ZedScan detected an extra 10 cases of HG disease
- Over a 3 year period approx. 1,400 clinic appointments would be 'saved'.
- Reduction in histology costs approx. 30% reduction in biopsies
- Less over treatment as increased PPV for 'see and treat'
- Aids conservative management of HG CIN

Conclusion

Although our colposcopists are highly trained and experienced, adjuncts to traditional colposcopy would increase sensitivity and so improve our services further and put us at the forefront of new advances in the field whilst providing excellent care to our women.

P-95 CERVICAL CONISATION AS A FERTILITY-SPARING OPTION FOR PATIENTS WITH SMALL VOLUME STAGE 1B1 CERVICAL CANCER

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Rational and background:

FIGO Stage 1B1 cervical cancer is widely variable ranging from >7mm width or >5mm depth up to 4cm mass. Evidence from literature confirmed that low volume stage 1B1 cervical cancer carries <1% risk of parametrial infiltration.

Objective:

To determine the outcomes of patients with small volume stage 1B1 cervical cancer treated by cervical conisation and bilateral pelvic lymphadenectomy (BPLN) during the period from January 2009 to December 2017.

Setting:

Royal Marsden Hospital, London, UK Primary outcome measure: Oncology outcome, survival and recurrence rates. Secondary outcome: Obstetric outcomes.

Results:

Retrospective analysis of data of 27 eligible patients. The median age at diagnosis was 29 years (IQR:25-33years). 22 patients (81.5%) were nulliparous. All patients had a diagnostic LLETZ at the referring institute. None of the patients had evidence of lymph node metastasis on CT or parametrial infiltration on MRI. The median horizontal dimension was 9mm (IQR:8-10mm), the median depth of invasion was 3mm (IQR:2.0-4.3mm) and the median tumour volume was 144mm3 (IQR:50.4-218.75mm3). All patients underwent repeat cervical conisation and BPLN except 3 patients. Any residual tumour or preinvasive lesion was completely excised on the final specimen. No positive lymph nodes were identified on histology. After a median follow-up of 46 months (IQR:26-72months), one patient was diagnosed with recurrent disease at 47 months after treatment and died 26 months after the recurrence. Seven out of the twelve patients who were trying for pregnancy (58.3%) achieved pregnancy. Six term babies were born and one preterm baby at 35 weeks but no miscarriages.

Conclusions:

Cervical conisation and BPLN in selected patients with stage 1B1 offer excellent survival, oncology and fertility outcomes with less morbidity. This will need to be verified by prospective RCT. Stringent definition of the small volume low-risk stage 1B1 cervical cancer is needed to have unified standards in different studies.

P-96 A SYSTEMATIC REVIEW OF HPV VACCINE IN THE TREATMENT OF VULVAL AND VAGINAL INTRAEPITHELIAL NEOPLASIA

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Background:

The role of HPV vaccine for treatment of HPV-related vulval (VIN) and vaginal (VaIN) intraepithelial neoplasia has not yet been fully established. HPV DNA is found in more than 80% of high grade VIN and VaIN. Cell-mediated immunity is required to clear established HPV infections. Current management includes surgical excision or ablation, which are associated with high recurrence rates.

Aim:

To review the literature regarding the role of HPV vaccination in the treatment of women with HPV-related VIN and VaIN.

Methods:

We included studies using any type of HPV vaccine for women with VIN and/or VaIN. We excluded studies of other lower genital tract disease including cancer and those concerning prophylactic vaccines. Outcome measures included lesion size, symptom improvement, immune response and HPV clearance. Database searches included Medline, Embase, PubMed and Cochrane library. Search terms included HPV vaccine OR Human Papilloma Virus vaccine and VIN or VAIN OR Vulval intraepithelial neoplasia OR Vaginal intraepithelial neoplasia, published in English with no defined date limit.

Results:

We identified 46 abstracts; 6 studies (130 women) met our inclusion criteria. The studies were case series and study designs heterogeneous. Reduction in lesion size was reported by 6 studies, symptom relief by 3 studies, HPV clearance by 6 studies and immune response by 6 studies. Regression was assessed by measuring lesion size before and after vaccination and was up to 83%. The effects on symptom relief varied from no overall change in symptoms to 79% of women becoming symptom free. HPV clearance rates varied (up to 47%); over 60% of women mounted an immune response to vaccination.

Conclusion:

Studies using HPV vaccines in the treatment of women with VIN and VaIN, show possibly encouraging effects on lesions size, HPV clearance, symptoms and immune response. More research into this topic is required.

P-97 EFFECTIVENESS OF COLD COAGULATION IN TREATING HIGH-GRADE CERVICAL INTRAEPITHELIAL NEOPLASIA: THE HUMAN PAPILLOMAVIRUS EVIDENCE OF CURE

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Objective:

Cure rates of cervical intraepithelial neoplasia (CIN) after treatment with cold coagulation are comparable to those of excisional methods on cytological follow-up. We wanted to establish if ''virological cure'' rates achieved by cold coagulation match those for large-loop excision of the transformation zone (LLETZ).

Study Design:

A retrospective analysis of post-treatment cure rates of CIN treated in a single colposcopy unit in Ireland between July 2013 and December 2014. The local electronic database was used to generate the required data. The main outcome measure was the rate of virological cure, which we defined as non-detection of the human papillomavirus (HPV) at six and eighteen-month follow-up. We compared the cure rates achieved by cold coagulation with that of LLETZ.

Results:

Out of a total of 472 women with CIN, 229 (48.5%) were treated by cold coagulation. Overall, HPV was not detected in 82.0% and 86.0% of women at six and 18-month follow-up, respectively. In women with high-grade CIN (CIN 2 and worse), there was no difference in HPV non-detection rates among the two treatment methods at six-month (81.8% for cold coagulation vs. 84.0% for LLETZ, x2 = 0.23, p-value = 0.632), and 18-month follow-up (83.3% for cold coagulation vs. 89.2% for LLETZ, x2 = 1.46, p-value = 0.227).

Conclusion:

Cervical cold coagulation provides a high ''virological cure'' rate for all grades of CIN, equivalent to that seen with LLETZ. Therefore, cold coagulation should be used as the first-line treatment for most cases of CIN especially in women of reproductive age.

P-98 EXCISION BIOPSY VS CONSERVATIVE MANAGEMENT: CIN 2 ON PUNCH BIOPSY IN WOMEN WITH LOW GRADE CYTOLOGY

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Background

Low grade cytology with HR- HPV testing is associated with CIN2 or worse histology in 23-27% of women. Spontaneous regression is reported in about 50-60% of women with CIN2 over a two year period. Excisional biopsy is associated with obstetric morbidity in women in reproductive age group

Objectives

To determine the final histology in women in this group who underwent excisional biopsy and to determine the number who were overtreated.

To determine the proportion of women who had spontaneous regression of high grade lesion when managed conservatively.

To identify predictive factors which are likely to help in decision making

(Avoid overtreatment while helping to identify women at high risk of progression)

Materials and Methods

Retrospective review of all new direct referrals with low grade cytology and diagnostic biopsy confirming a CIN 2 between January 2016 to June 2017 in North Tees and Hartlepool NHS Trust. Cases were identified from the colposcopy, histology and pathology database.

Demographic data, previous screening history, colposcopic features, immunohistochemistry data (P16) were collected. Final histology in women who underwent excisional biopsy were analysed.

Outcome of follow up in women who were managed conservatively were collected.

Results:

Average age of the women was 34 yrs (21-58). 41% of women who underwent LLETZ had CIN1 or less on histology (? overtreatment). No high grade lesion was detected in women with documented TOC smear.

75% of women who were managed conservatively were discharged after 6 month colposcopic and cytology follow up.

Conclusion

Conservative management seems to be a safe option in selective women with CIN2 and low grade cytology. It is important to ensure compliance among women for follow up to avoid missing women at high risk of progression.

P-99 AUDIT OF CERVICAL LOOP EXCISIONS AT COLPOSCOPY

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North West Anglia NHS Trust, United Kingdom

Background:

There is a direct co-relation between depth of cervical loop excision and pre-term labour in subsequent pregnancies. NHSCSP document 20 recommends that cervical loop depths should be of 7-10mm.

Aim:

To reduce the depth of cervical loop excision to reduce risk of pre-term labour without increasing the risk of persistent CIN disease.

Method:

1st cycle audit performed in June-December 2015 (70 women). Change in practice was introduced and second cycle audit performed April-November 2017(47 women). New loops of maximum depth 10mm were introduced for use as default. practice of optimising loop depths was reinforced regularly at colposcopy operational and MDT meetings.

Findings:

The proportion of women with loop depths of 7-10mm increased from 40% to 60%. the proportion of loop depths of <7mm also increased from 8% to 21%.

On combining data from both audits 21% women with loop depths of 7-10mm had incomplete excision margins compared to 2% when the loop depth was > 10mm. Of 13/72 women with loop depths of <10mm and incomplete margins 9 have had follow up cytology results available. All have negative cytology at the 6 month TOC test. 3 tested positive for HR HPV.

Conclusion:

Increasing the depth of excision to > 10mm reduces the risk of incomplete excision of CIN. However it appears that in women in with loop depth of <10mm and incomplete margins the risk of residual CIN is low.

All units to review their cervical loop depth data regularly and aim to reduce loop depths at excision treatment of CIN.

P-100 TO TREAT OR NOT TO TREAT? AN AUDIT OF UNTREATED HIGH GRADE CERVICAL ABNORMALITY

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Introduction

Treatment of high grade intraepithelial neoplasia remains gold standard; frequently performed with Large loop excision of the transformation zone (LLETZ).

In some cases, there is a discrepancy between cytological and histological high grade dyskaryosis. During multi-disciplinary meeting (MDM) the decision is made as to whether these patients can be safely managed conservatively, particularly, in young women of reproductive age.

The aim of the study is to assess the outcome of these cases, where conservative management was adopted.

Methods

Cases with a discrepancy between the cytology and biopsy were identified from the MDM database in a busy teaching hospital, over a 5-year duration (2012-2017). The demographics and outcomes of the patients were reviewed.

Results

Thirty-five patients were identified. The mean age was 32 years, range 24-48 years old. Most patients were nulliparous (86%) and non-smokers (83%). 71% of patients were referred initially with mild abnormalities on smear, but 26% had a high-grade abnormality on smear.

Colposcopic impression for most patients was of low grade abnormalities (91%) with the remaining (9%) high-grade. All patients had a multiple directed punch biopsies. 54% revealed low grade abnormalities, 43% CIN2 and 1 patient had a normal biopsy (3%).

All patients received at least one further follow up appointment (range 2-5). At the first follow up appointment 89% of women had a low grade colposcopic image; with only 3% and 9% having a normal and high-grade colposcopic image respectively.

Ultimately, nine women underwent LLETZ treatment (final histology revealed CIN2 in 8 cases and CIN1 in one case). The remaining patients had conservative management and were eventually discharged from clinic.

Conclusion

Discrepancy between cytological, histological samples is not an infrequent occurrence, and confirms the need for multiple directed biopsies and the need for MDM review of these cases. Most of which can be safely managed conservatively.

P-101 REAUDIT OF DEPTH OF CERVICAL LOOP EXCISIONS IN TREATMENT OF CIN

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Background:

There is a direct co-relation between depth cervical loop excision for CIN and pre-term labour in subsequent pregnancies. NHSCSP document 20 recommends that cervical loop depths should be between 7-10mm.

Aim:

To reduce the depth of cervical loop excisions for treatment of CIN to < 10mm to reduce risk of preterm labour in subsequent pregnancies without increasing the risk of persistent disease.

Method:

1st cycle audit carried out in June -Dec 2015 (70 women). Change in practice were introduced and second cycle audit performed in April -November 2017 (47 women). New loops of maximum depth 10mm introduced for use as default. Practice of optimising depths of loop excision was reinforced regularly at colposcopy operational and MDT meetings.

Results:

The proportion of women with depth of excision of 7- 10mm increased from 40% to 60.%. The proportion of women with excision depths <7mm also increased from 8% to 21%.

On combining data from both audits 21% women with excision depths of 7-10 mm had incomplete excsion compared to 2% when excision was more than 10mm

The % of women with incompletely excised CIN changed from ...% to ..%. In these women, none underwent a repeat excision and follow up cytology at 12 months revealed.....

Conclusions:

Reducing depth of excision to < 10mm does not increase the risk of incomplete excision or disease progression. Units to regularly review their data and aim to reduce depth of excision

P-102 LARGE LOOP EXCISION OF THE TRANSFORMATION ZONE (LLETZ): - A CHALLENGING COMPLICATION "CASE REPORT"

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A thirty-seven-year-old multiparous woman was referred to colposcopy clinic on the 2-week cancer pathway because of a suspicious cervical lesion noted on examination. Her past history included: three previous caesarean sections and LLETZ for high grade cervical dyskaryosis. She was HIV positive and a non-smoker.

Colposcopic examination was unsatisfactory with a high-grade impression. The smear was inadequate and the biopsy showed high grade disease. Her case was discussed in multi-disciplinary meeting and the decision was for LLETZ. She underwent an uncomplicated LLETZ procedure; the final histology was reported as CIN1.

The patient presented 4 months later with a history of profuse watery vaginal discharge; soaking 5 pads a day, since her treatment. She also described leaking of urine after emptying her bladder. There was no stress or urge incontinence symptoms.

A pelvic ultrasound scan showed that the uterus was adherent to the anterior abdominal wall and bladder adherent to the anterior uterine wall. Vaginal fluid creatinine was 60umol/L comparable to plasma and not suggestive of urine. Her swabs did not show any pathogens, and she was referred to Urogynaecology team.

Video-Cysto-Urethrography was normal. CT Urogram showed no evidence of Vescico-Vaginal fistula or ureteric-vaginal fistula. Examination under general anaesthesia showed a scarred, inflamed cervix, deficient on the left. Fluid was noted pooling in the vagina, but Methylene blue revealed no evidence of fistula. Cystoscopy was unremarkable with normal ureteric orifices.

Smear was inadequate and culture was again negative. Biopsies from the cervix showed only inflammatory reaction. She was given empirical course of oral metronidazole. Her symptoms improved spontaneously, and follow up colposcopy was normal.

This case demonstrates the challenges in managing retroviral positive patients in colposcopy clinic. Human immunodeficiency virus-seropositive women with acute pelvic inflammatory disease may have an altered immune response, and pathogens may not be seen on swab.

P-103 LLETZ DEPTH AND CORRELATION WITH SUBSEQUENT PRETERM DELIVERY

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Large loop excision of the transformation zone(LLETZ) is the most common treatment for cervical intraepithelial neoplasia(CIN). It is implicated with adverse perinatal outcome, such as preterm delivery(PTD). We aimed to correlate depth of LLETZ treatments with subsequent preterm deliveries in a large tertiary maternity hospital.

Concurrently, pathology and obstetric databases were searched concurrently to identify women of reproductive age who had LLETZ treatment followed by preterm delivery over a 10 year period. Data was extracted and analysed. Exclusion criteria included multiple pregnancy, and deliveries identified through the databases as being due to current pregnancy indications.

Premature delivery occurred in 303 women over a 10 year period who had a previous LLETZ. Following application of exclusion criteria, there were 97 cases of unexplained preterm delivery following cervical treatment. Mean maternal age and gestation at delivery was 35.47 years and 33+2 weeks respectively. The average time between LLETZ and preterm delivery was 42 weeks. CIN 1 was diagnosed in 16 (16.4%), CIN 2 in 24 (24.7%), CIN 3 in 53 (54.6%), and 4 (4.1%) were negative for CIN. There was no micro-invasive or invasive disease was identified. The average depth of excision was 9.9mm, 11.4mm and 8.5mm for CIN 1, 2 and 3 respectively.

Despite having a lower mean depth of excision, women with CIN 3 comprised the majority of those who experienced preterm delivery, suggesting that factors other than mechanical weakness owing to removal of cervical tissue are implicated in preterm labour for these women. This is in keeping with recent suggestions that the common denominator in high grade CIN and preterm labour is an altered vaginal microbiome. It is interesting to note that the average length of excisional depth is largest in CIN 2, and in excess of what is recommended in BSCCP guidelines.

P-104 THE IMPACT OF EXCISIONAL TREATMENT ON THE VAGINAL MICROBIOTA AND INNATE CERVICAL IMMUNE SYSTEM

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Background:

The innate immune system, along with the vaginal microbiota (VMB) provide defence against infections including HPV. Lactobacillus spp. depletion has been associated with CIN and as preterm birth (PTB). Treatment with conisation increase the risk of preterm birth; the mechanism remains unclear.

Objectives:

To investigate the impact of excisional treatment for CIN on VMB composition, antimicrobial peptides (AMPs) and pro-inflammatory cytokine expression.

Material and Methods:

Population: Non-pregnant, premenopausal women attending the colposcopy clinic for a) excisional treatment of histologically-proven CIN (treatment group) (n=103) and b) healthy women with normal cytology and colposcopy (n=40).

Analysis: Vaginal swabs collected before treatment, and at six-month follow-up and used for 16s rRNA bacterial sequencing and enzyme-linked immunosobent assay (ELISA) to quantify AMP and cytokine levels.

Results:

Women with CIN had higher diversity VMB with less Lactobacillus than normal controls, which remained even after successful excision treatment. The proinflammatory cytokines IL-1b and IL-8 were both significantly elevated before treatment compared to normal controls ($p<0.0001$ and $p=0.0036$ respectively) and remained higher despite excision of the disease ($p=0.0002$ and $p=0.0114$ respectively. Levels of two AMPs; Human Beta Defensin-1 (hBD-1) and Secretory Leucocyte Protease Inhibitor (SLPI) were significantly lower after treatment compared to controls (both $p<0.0001$).

Conclusions:

Women after treatment continue to have a high-diversity, Lactobacillus spp. deplete VMB, higher levels of proinflammatory cytokines and lower AMP levels. This may result in inferior protection from infectious agents leading to increased risk of preterm birth in a subsequent pregnancy and higher risk of disease recurrence as opposed to the general population.

P-105 THE MANAGEMENT OF WOMEN WITH PRE-TREATMENT CIN2: A RETROSPECTIVE COHORT STUDY

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Objective:

To test the hypothesis that cold-coagulation (CC) treatment results in similar cure rates to large loop excision of the transformation zone (LLETZ) for cervical intraepithelial neoplasia grade 2 (CIN2) on pre-treatment cervical biopsies.

Methods:

This was a single centre retrospective cohort study of women treated for CIN2 from 30th April 2012 to 30th April 2014, following introduction of the Test of Cure (TOC), Scotland-wide. A successful TOC was defined as a negative HPV test and negative/borderline cytology. Unsatisfactory smears were included as "fails". Follow-up was censored in December 2017.

Results:

197 women with histologically proven CIN2 were included, of which there were 121 (61%) LLETZ and 76 (39%) CC treatments. Women treated with CC were significantly younger than by LLETZ (29.4 ± 9.5 years versus 32.3 ± 6.8 years, p=0.02). The median time for a TOC smear was 276 days. Nine women did not attend follow-up smears. The cure rates following LLETZ and CC were 64% and 63%, respectively. Of those who had repeat cytology after failed TOC, cure rates were 80 and 89% for LLETZ and CC, respectively. Rates of high grade dyskaryosis following both treatment types were similarly low (<2%). Women were more likely to have an unsatisfactory smear after CC (16%) compared with a LLETZ (9%).

Conclusion:

It was found that women with pre-treatment CIN2 had similar cure rates when treated with CC versus LLETZ at TOC. Women were more likely to have an unsatisfactory smear following CC. This finding may prompt smear takers to consider using an additional endocervical brush. There was often a delay prior to the TOC smear, which should be performed at six months. While there were no issues with disease progression in this cohort, women should be encouraged to attend for this essential follow-up test.

P-106 PREGNANCY OUTCOMES IN WOMEN WITH CONSERVATIVE MANAGEMENT OF CIN2

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Background

With growing evidence of poor obstetric outcomes following LLETZ, there is increasing uncertainty regarding optimum management of CIN2 in patients wishing to retain fertility. There is little evidence dictating the success or safety of conservative management (CM) of CIN2 with a lack of current national guidance. The effect upon obstetric outcomes and subsequent postpartum cytology screening is uncertain.

Objectives

Primary objective: Review the incidence of pregnancy in women in the conservative CIN2 programme.

Secondary objectives: Report obstetric outcomes and postnatal cytology.

Methods

All women patients diagnosed with CIN2 from 2014 to 2017 within our department were included. Clinico-pathological and demographic data including, obstetric outcomes, colposcopic findings, cervical cytology and histology were collated from electronic databases and analysed by treatment intention using standards from our departmental protocol.

Results

Of the 281 patients with CIN2 on diagnostic punch biopsy (PB) at referral, 181 (64%) underwent LLETZ as a primary procedure. Following counselling, 100 (36%) patients opted for CM with 6 monthly colposcopy, cytology +/- PB. Rate of regression to ≤CIN1 was 58% at 24 months. 17 women with CM had 20 pregnancies, of which 5 are ongoing. There were 10 (67%) live births, all at term and all without obstetric or neonatal complications. There were 2 1st trimester miscarriages and 1 PUL. 5/8 (63%) postpartum cytology results were negative/low grade with 3 (37%) high grade cytological abnormalities with persistent CIN2 histologically.

Conclusion

Conservative management of CIN2 is reasonable in women who are appropriately counselled and who attend for regular follow-up. Regression is seen in 58% at 2 years and there have been no cases of progression to invasive disease. The live birth rate in this series was 67%, with persistence of high grade abnormalities postpartum in 37%.

P-107 OUTCOMES OF LABOUR AND DELIVERY FOLLOWING SINGLE CERVICAL LLETZ TREATMENT

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Introduction

Pregnancy after lletz has historically been associated with adverse obstetric outcomes ranging from cervical shortening/incompetence, preterm pre labour rupture of membranes, preterm delivery and subsequent neonatal complications. Numerous studies have demonstrated that excisional treatment of the cervix increases the risk of preterm delivery. The evidence for impact of treatment of preinvasive cervical disease on early pregnancy outcomes, particularly under 24 weeks gestation is somewhat limited.

The focus of investigation has generally been on the concept of excision depth, with sizes more than 10 mm leading to increased risk of preterm delivery (RR 2.61). Cervical length measurement has been employed in subsequent pregnancies to assess and pre-empt risk of preterm birth. More recent data suggests a link between total volume of cervical tissue removed and subsequent risk of preterm delivery.

Aims and Objectives

We aim to identify women who have had a single lletz treatment in our Colposcopy clinic who have had subsequent pregnancies and delivered in our maternity unit. The objectives are to assess pregnancy outcomes in those women as primary outcomes, with secondary outcomes focussing on neonatal morbidity. We aim to identify if there is an increased risk of preterm delivery or mid trimester miscarriage, labour dystocia, failed induction following cervical treatment. We also aim to assess if cervical length/volume excised impacts the previously mentioned outcomes.

Methods

This is a retrospective review of prospectively collected data and histopathology samples from 2005-2010. Chart review is currently ongoing for data collection.

Following analysis there is potential for a change in practice depending on results with consideration to international guidance and standards.

P-108 EXTRAMAMMARY PAGET'S DISEASE OF THE VULVA: A REPORT OF TWO CASES

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Objective:

Paget's disease of the vulva is an extremely rare neoplasm that accounts for less than 1% of vulval malignancies. We present two cases of women diagnosed with extramammary Paget's disease of the vulva that were managed in our unit.

Methods:

Two postmenopausal women were referred from primary care for symptoms of vulval soreness and a clinically suspicious vulval lesion. A subsequent excisional biopsy confirmed extramammary Paget's disease. Investigations were performed to exclude other primary malignancy sites and the recommendation from the multidisciplinary team was to offer vulval surgery or Imiquimod.

Results:

The first case involved a 77 year old fit women with vulval soreness for more than two months unresponsive to topical antifungals. On examination a 2 cm velvety-red coloured left labial lesion was noted. An excisional vulval biopsy confirmed the diagnosis. CT imaging of the chest, abdomen and pelvis was unremarkable for other primary malignancies. Due to the small sized vulval lesion she was offered vulval surgery. The second case involved a 62 year old woman with a history of stage T1b breast cancer, a history of hysterectomy for benign reasons, and recently she was treated for vulval lichen sclerosus with topical steroids. She presented with a 5 X 3 cm left labial lesion that was red coloured and thickened and extended peri-anally. An excisional vulval biopsy confirmed the diagnosis. Again CT imaging of the chest, abdomen and pelvis was unremarkable. Due to the large size of the vulval lesion she was offered the option of topical Imiquimod for 16 weeks.

Conclusion:

We report two cases of Paget's disease of the vulva managed in our unit. Clinical features of the vulval lesion were similar and in both cases the diagnostic work-up was unremarkable. Treatment choices were dictated by the vulval lesion size and following the multidisciplinary team consensus.

P-109 PECOMA (PERIVASCULAR EPITHELIOID CELL TUMOUR) AND MESONEPHRIC ADENOCARCINOMA OF THE UTERINE CERVIX: THE CO-EXISTENCE OF A RARE BENIGN TUMOUR WITH AN EXTREMELY RARE MALIGNANT TUMOUR OF THE CERVIX

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Background:

Perivascular epithelioid cell tumour (PEComa) of the uterine cervix is an uncommon mesenchymal benign tumour. Mesonephric adenocarcinoma of the uterine cervix is also an uncommon but malignant tumour, with only 40 cases described so far. We describe a rare case of a woman where both tumour types co-existed.

Methods:

A 67 year old woman was referred from primary care due to post-menopausal bleeding. On physical examination an endocervical mass was found and subsequent biopsies showed the possibility of PEComa of the cervix. The patient underwent radical hysterectomy where the final histology demonstrated residual PEComa and also mesonephric adenocarcinoma of the cervix.

Results:

Upon initial referral for postmenopausal bleeding, an ultrasound scan showed a thin endometrium and a 3.4 x 3 cm hypoechoic endocervical mass. On physical examination, there was a friable mass protruding from the cervix which bled on contact. The patient's smear history was unremarkable. Histopathological examination of the cervical punch biopsies initially favoured melanoma, but on review the diagnosis of cervical PEComa was made. PET imaging prior to surgery showed the endocervical mass to be 4.5 cm. A radical hysterectomy was undertaken with bilateral salpingo-oophorectomy and lymph node dissection. The diagnosis of co-existence of the two rare tumour types was made following the surgery. The patient is now one year after surgery and has received adjuvant chemo-radiotherapy.

Conclusion:

We report the extremely rare co-existence of a benign and a malignant type of uterine cervix tumour. The diagnosis was not made possible until after radical surgery.

P-110 REPEAT LETZ: MDT INDICATIONS AND OUTCOMES

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Loop excision of transformation zone (LETZ) of cervix is the most commonly performed excisional treatment for high grade CIN, with majority being performed as See &Treat in our unit. It is highly successful in removing the abnormal epithelium with best specimen quality but concerns regarding obstetric implications have generated a lot of debate on the extent of excision. BSCCP has issued very clear guidance on maximum depth of excision for LETZ, depending on the type of cervical transformation zone, to minimise future obstetric complications. BSCCP also offers clear guidance on when repeat excision is recommended, although no reference to depth or volume of repeat excision for various margin scenarios. In our unit, all cases requiring repeat excision are discussed in the Colposcopy MDT.

We have reviewed two years data on women discussed at our MDT, who have been advised repeat LETZ for various indications. We would like to present our data on relevant patient demographics, indications (cytological or histological), quality of patient information and shared decision making and cytological outcomes at 12-24 months. We will also present data on histology of the repeat LETZ, with special focus on total volume of tissue excised and open discussion on its relevance for future obstetric or non-obstetric implications.

Repeat LETZ procedures are more risky surgically, psychologically traumatic to patients, with significant obstetrics and other long term gynaecological complications from cervical stenosis. Due to problems with subsequent cytological surveillance, many women undergo unnecessary hysterectomy too. Incidence of Repeat LETZ is a Quality indicator and we believe regular reviews are essential.

How can we balance our clinical practise to reduce Repeat LETZ? Whilst this is unavoidable for women with incompletely excised micro-invasive disease, can this be minimised for others through better shared decision making and promotion of expectant management?

P-111 THE MISCARRIAGE AND SPONTANEOUS PRETERM BIRTH RATES IN WOMEN TREATED WITH COLD-COAGULATION VERSUS LLETZ CERVICAL TREATMENT FOR CERVICAL INTRAEPITHELIAL NEOPLASIA; A RETROSPECTIVE CASE SERIES

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Objective:

To compare the pregnancy outcomes between women who were treated with cold coagulation versus large loop excision of the transformation zone (LLETZ) for cervical intraepithelial neoplasia.

Methods:

This was a retrospective case series of women with a single cervical treatment between 2010-2011. We identified those women who had a singleton pregnancy subsequent to their cervical treatment until September 2017. We excluded women with previous cervical treatment, previous miscarriage or preterm delivery.

Results:

We identified 86 women with a pregnancy after LLETZ treatment and 75 women after cold coagulation. Those who had LLETZ when compared to cold coagulation miscarried more often in the first trimester (33.7% vs 17.3%;p=0.01) than in the second trimester. In women with LLETZ this effect of increased early miscarriage was shown to be prolonged and to persist up to 17 months after excision. Women with LLETZ when compared to cold coagulation had higher spontaneous preterm birth rates (8.9% vs 6.7%) even though the difference was nonsignificant, with the earliest spontaneous preterm birth occurring at 32 weeks and 34 weeks, respectively.

Conclusion:

We found that women who received LLETZ treatment when compared to cold coagulation had higher spontaneous preterm birth rates in their subsequent pregnancy and miscarried more frequently in the first trimester, and demonstrated an increased early miscarriage risk that persisted for more than a year after excisional treatment.

P-112 PATHOPHYSIOLOGY AND INTRAPARTUM MANAGEMENT OF CERVICAL SCAR TISSUE (CST) AND STENOSIS IN OBSTETRIC PATIENTS WITH PREVIOUS COLPOSCOPIC-GUIDED CERVICAL TREATMENT

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Colposcopic guided cervical treatment is recommended for high-grade cervical epithelial abnormalities. Large loop excision of transformation zone (LLETZ) is the commonest procedure performed in such cases. The risk of preterm labour following cervical treatment is well studied, however, there is a little research on the risk of cervical dystocia and managing cervical scar tissue in labour. Most of the published case reports failed to accurately recognise the pathophysiology and describe the appropriate management, with few having unnecessary Cesarean sections.

This is a case series and review of available published literature for the intrapartum management of cervical scar tissue in the delivery suite. Women who were initially found to have cervical dystocia and counselled for CS were carefully reassessed and review of the decision was undertaken, followed by successful vaginal birth.

On literature review, there is a paucity of published literature in managing such cases, mostly as case reports. The concern is the risk of cervical dystocia and uterine rupture. However, most of those cases, the cervical dystocia was an apparent failure to dilate, due to intracervical scarring, rather than true cervical rigidity - with various degrees of cervical effacement. Digitally releasing cervical scarring gently during examination can overcome it and allows successful vaginal delivery. Recently, there was a case report of a cesarean section for the same.

This is a very interesting subject as it was not well studied before by obstetric or colposcopy practitioners, and it shows another risk to consider when counselling patients for treatment and when assessing patients who initially had a failed induction of labour.

Conclusion:

Awareness of the anatomy and pathology of the cervix in such cases is helpful in managing them – by avoiding unnecessary Cesarean sections. Consideration of alternative mechanical methods of induction of labour might be more appropriate in such cases.

P-113 CONSERVATIVE MANAGEMENT OF CIN 2 - ARE WE ADVOCATING THE RIGHT MANAGEMENT? AN AUDIT OF WOMEN WITH A DIAGNOSIS OF CIN 2 ON PUNCH BIOPSY SUBSEQUENTLY DETECTED WITH CIN3 ON LLETZ - 12 MONTHS DATA FROM GLOUCESTERSHIRE COLPOSCOPY SERVICE

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Introduction

High grade CIN is commonly managed by excisional treatment in the UK. Excisional treatment is not without risk. Adverse obstetric outcomes like pre-term labour have been linked with LLETZ.

This has resulted in a debate if selective cases of CIN 2 can be managed without excisional treatment as a significant proportion of cases may regress spontaneously.

Aim

Our audit aims to find out the risk of underlying CIN3 in women who had been detected with CIN2 on punch biopsy and subsequently had an excisional treatment.

Method

Retrospective audit over 12 months of women who were found to have CIN2 on punch biopsy and subsequently detected with CIN3 on loop specimen.

Results

129 women were diagnosed with CIN2 on punch biopsy of cervix and subsequently had loop excision of cervix.

27 out of 117 (23%) women below 44 years were found to have CIN3 on loop specimen who previously were diagnosed with CIN2 on punch biopsy.

16.6% (2 out of 12) over the age of 45 years had CIN3 on loop specimen who previously had CIN2 on punch biopsy.

Overall, the incidence of CIN3 on loop was 22.5% who had CIN2 on preceding punch biopsy.

Conclusion

Our audit shows that a significant number of women have underlying CIN3 who had been detected with CIN2 on preceding punch biopsy of cervix.

In spite of a relatively smaller number, we recommend that all cases of CIN2 considered for conservative management must be discussed at colposcopy MDT meeting. A consensus should be reached by the multidisciplinary team that it is reasonable to consider conservative management.

The choice of treatment or conservative management should be discussed with the patient and the patients' wishes should be taken into account.

The audit result re-emphasises the need for a larger series and the need for relevant guideline.

P-114 NATURAL HISTORY OF UNTREATED CERVICAL INTRAEPITHELIAL NEOPLASIA GRADE 2 UNDER ACTIVE SURVEILLANCE – A SYSTEMATIC REVIEW AND META-ANALYSIS

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Aim

The natural history of cervical intraepithelial neoplasia grade 2 (CIN2) remains uncertain. Although CIN2 is commonly treated with local excisional treatment of the cervix, a substantial proportion of CIN2 lesions may regress spontaneously. We estimated the regression, persistence and progression of untreated CIN2 lesions managed conservatively as well as compliance with follow-up protocols.

Material and Methods

Medline, Embase and CINAHL were searched from January 1, 1973 to August 20, 2016 for studies reporting on outcomes of histologically confirmed CIN2 in non-pregnant women managed with active surveillance for at least three months. Two reviewers extracted data and assessed risk of bias. We calculated pooled proportions for each outcome with random-effects model and assessed heterogeneity using I2 statistics.

Results

We identified 36 studies (7 randomised trials, 16 prospective and 13 retrospective cohorts; 50% of the studies were low risk of bias) that included 3160 women. At 24 months, the pooled rates were 50% (11 studies, 819/1470 women, 95% confidence interval (CI) 43% to 67%; I2 77%) for regression, 32% (8 studies, 334/1257 women, 95%CI 23% to 42%; I2 82%) for persistence, and 18% (9 studies, 282/1506 women, 95%CI 11% to 27%; I2 90%) for progression. In a subgroup analysis including 1069 women under the age of 30, the rates were 60% (4 studies, 638/1069 women, 95%CI 57% to 63%; I2 0%), 23% (2 studies, 226/938 women, 95%CI 20% to 26%; I2 97%) and 11% (3 studies, 163/1033 women, 95%CI 5% to 19%; I2 67%), respectively. The rate of non-compliance (at 6 to 24 months of follow-up) in prospective studies was around 10%.

Conclusions

The majority of CIN2 lesions, particularly in young women, regress spontaneously. Active surveillance, rather than immediate intervention, is therefore justified, especially among young women who are likely to adhere to monitoring.

P-115 CERVICAL ENDOMETRIOSIS DIAGNOSED BY COLPOSCOPY DIRECTED BIOPSY

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Cervical endometriosis is usually a retrospective finding on histology. We describe the diverse symptomatology of the disease, wherein a suspicion of diagnosis may be raised. A series of five patients with cervical endometriosis confirmed on histology was identified. One patient was asymptomatic but examination revealed a mass arising from the cervix. Two patients presented with persistent postcoital bleeding, one patient with intermenstrual bleeding and one patient with both intermenstrual and postcoital bleeding. All patients were followed up with colposcopy and cervical biopsy. Persistence of symptoms determined the mode of treatment which included surgical management in the form of large loop excision of the transformation zone (LLETZ) biopsy in four patients. Cervical endometriosis is a benign condition which may present with symptoms such as persistent post-coital bleeding or intermenstrual bleeding. Colposcopy and cervical biopsy are pivotal to the diagnosis. This condition can be managed expectantly in asymptomatic patients and persistent symptoms may warrant surgery.

P-116 THERAPEUTIC EFFECT AND SAFETY OF 5% IMIQUIMOD AMONGST WOMEN WITH VAGINAL INTRAEPITHELIAL NEOPLASIA (VAIN); A SYSTEMATIC REVIEW OF THE LITERATURE AND META-ANALYSIS

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Vaginal intraepithelial neoplasia (VaIN) is an uncommon disease associated with HPV and is considered to be a precursor of vaginal carcinoma. To date, treatment recommendations vary with no universally accepted standard of care as best treatment modality. Surgical treatment of VaIN is not always feasible, especially in young women with multifocal disease. Topical 5% imiquimod acting as an immune response modulator, appears to be a promising, alternative, non-invasive treatment option.

To ascertain the efficacy of 5% imiquimod for the treatment of VaIN, we conducted a systematic review and meta-analysis of the proportion of women who received 5% imiquimod with their complete response, HPV clearance and recurrence rates. A literature search was conducted throughout the PubMed, EMBASE, ClinicalTrials.gov and Cochrane Databases for relevant studies. We computed the summary proportions for complete response, HPV clearance and non-recurrence following administration of 5% imiquimod by random effects meta-analysis.

Six articles reporting on 94 patients were included. The summary proportions of women with complete response and HPV clearance were 76.5% (95% CI 59.4–98.5) and 52.5% (95% CI 29.5–93.6) respectively. The summary proportion of women with non-recurrence appeared high (94.3% (95% CI 67.1–132)), yet not significant. The agent was well-tolerated by the vast majority of the patients and discontinuation of the treatment or dose reduction was reported only in a small proportion.

5% imiquimod cream is an effective and safe non-invasive alternative treatment for VaIN, which can lead to less aggressive and morbid interventions, especially amongst young women with multifocal lesions or postmenopausal women wishing to avoid surgical modalities. In the absence of standard guidelines, this review provides the sole evidence to support the efficacious use of 5% imiquimod until further randomised control trials with prolonged follow-up become available to draw more definite conclusions and compare against other treatment modalities.

P-117 THE CHALLENGES IN DIAGNOSING AND PREVENTING INVASIVE CERVICAL CANCER AFTER CIN TREATMENT: A CASE SERIES FROM A SINGLE CENTRE

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Objective:

Women after CIN treatment remain at high risk of invasion. Diagnosis and prevention can be challenging after treatment. The aim of this study is to present the diagnosis, management and potential causality/pathogenesis in a case series from a single academic institution.

Methods:

We prospectively collected data on all cases of invasive cancer after CIN treatment diagnosed in the University Hospital of Ioannina between 1997-2017. We excluded all cases diagnosed within the first 2 years after treatment, women with non-histological diagnosis of CIN or those with not regular f-u.

Results:

We identified 9 women that met our eligibility criteria. The interval from initial treatment to diagnosis of cancer varied from 7 to 16 years. All 9 cases remained cytologically and colposcopically disease-free after treatment, until a 'sudden' diagnosis of cancer was made. The challenges of diagnosis and prevention will be presented in the clinical history of the individual patients.

Conclusion:

Our "cervical crypt" theory may explain the unexpected and difficult to diagnose development of invasive cervical cancer. Heavy cauterisation of crypts during treatment might bury dysplastic cells (or cells currently not dysplastic but having been exposed to the mutagenic effect of the same carcinogenetic factors, as the rest of the TZ) inside these crypts. Subsequent colposcopies and cytology smears fail to detect these pre-cervical cells as there is no direct access to the external surface of the cervix. It is only when the cancer cells start growing towards the exterior epithelium/canal that these become detectable. Cytology and colposcopy have therefore reduced sensitivity in the diagnosis and prevention in these cases. Future research should aim to identify alternative ways of following up this population. The value of HPV DNA/mRNA tests as tests of cure in the risk of invasion remains unclear.

P-118 CIN 2 – SHOULD WE WAIT AND WATCH? OUTCOMES OF CONSERVATIVE MANAGEMENT OF HITOLOGICALLY DIAGNOSED CIN 2

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At present UK national colposcopy guidelines do not distinguish between CIN 2 and CIN 3 and classify both as high grade cytological abnormality and recommend excisional or ablative treatment. However, the rate of spontaneous regression of CIN 2 is reported as between 15% and 65%, raising possibility that treatment is excessive. A recent BSCCP audit showed that 55.6% clinicians offer conservative management of CIN 2 in patients, who are appropriately counselled and are able to comply with more intensive follow up.

The aim of this study was to look at the outcomes of all biopsy-proven CIN 2. Immediate treatment and conservative management are compared. We seek to assess if conservative management could be offered more widely.

Retrospective analysis of records of all patients with biopsy confirmed diagnosis of CIN2 during a 22 month period with follow up available for at least 12 months from a moderately sized unit in the North of England.

Between April 2015 and January 2017 there were 284 cases of histologically confirmed CIN2. 85% patients(n=240) had immediate treatment and 15%(n=44) were treated conservatively. Histological diagnosis from patients who had immediate excisional treatment was CIN 2 in 48% CIN 3 30% in CIN 1 18% and No CIN in 3.7%.

Among patients who received conservative treatment 18%(n=8) eventually required excisional treatment. Histological diagnosis was CIN 2 in 62%(n=5), CIN 1 in 25%(n=2), CIN 3 in 12.5%(n=1).

During the follow up 20% of conservatively treated patients were discharged from colposcopy following low grade/negative repeated biopsy. 13% patients had a subsequent pregnancy and the follow up was postponed until after the delivery.

Vast majority of patients underwent immediate treatment for CIN 2. Among conservatively treated patients only 18% required excisional treatment raising question of whether we should offer watch and wait option more widely and reduce the overtreatment burden.

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