



Australasian Gynaecological
Endoscopy & Surgery
Society Limited

Disaster Recovery & Risk Management AGES XXI ANNUAL SCIENTIFIC MEETING 2011

Melbourne Victoria
24 - 26 March 2011
Abstracts and Program

International Guest Speakers

Professor Masaaki Andou *Japan*
Professor Mario Malzoni *Italy*

Dr Jim Tsaltas
Professor Ian Fraser

Conference Chair
Honorary Chair

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Disaster Recovery
& Risk Management
AGES XXI ANNUAL SCIENTIFIC MEETING 2011

Faculty, Board and Committee Members	2
Welcome Message	3
Conference Program Thursday 24 March	4-5
Conference Inclusions	5
Conference Program Friday 25 March Saturday 26 March	6-7 8
AGES Awards	8
CPD and PR&CRM Points	8
Program Abstracts Thursday 24 March Friday 25 March Saturday 26 March	9-13 15-18 19-21
Free Communications: Session A Thursday 24 March	22-25
Free Communications: Session B Thursday 24 March	26-31
Free Communications: Session C Thursday 24 March	32-37
Future AGES Meetings	37
Free Communications: Session D Friday 25 March	38-43
Free Communications: Session E Friday 25 March	44-49
Free Communications: Session F Friday 25 March	49-53
Sponsors & Exhibitors	54-55
Notes	56
Information & Conditions	57

CONTENTS





Disaster Recovery & Risk Management

AGES XXI ANNUAL SCIENTIFIC MEETING 2011

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Conference Connection
282 Edinburgh Road, Castlecrag NSW 2068 AUSTRALIA
T +61 2 9967 2928
F +61 2 9967 2627
secretariat@ages.com.au

INTERNATIONAL FACULTY

Prof. Masaaki Andou	Japan
Prof. Mario Malzoni	Italy

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282 Edinburgh Road, Castlecrag NSW 2068 AUSTRALIA



WELCOME

Dear Colleagues,

We welcome you to the AGES 2011 Annual Scientific Meeting entitled *Disaster Recovery and Risk Management*. The organising committee has devised a comprehensive program outlining the areas of clinical care that can lead to potential errors, and best practice methods of avoiding and managing them. The program looks at both clinical and human errors that may contribute to problems in the operating theatre, how to prevent these errors from occurring and if these occur, managing them, all of which have become a vital part of modern clinical practice.

As well as risk management and disaster recovery, this program will address a number of very important topics in gynaecological surgery. These topics include endometrial hyperplasia, early endometrial cancer, and adenomyosis and its implication on fertility and endometriosis. We are privileged and honoured to have as our international guest speakers two of the world's leading laparoscopic surgeons. Their primary interests are not only in advanced laparoscopic surgery but risk management and management of complications.

Our speakers are a combination of Japanese wizardry and Italian flair.

Professor Masaaki Andou is vice-director and head of gynaecology at Kurashiki Medical Centre in Osaka, Japan, and clinical professor of Osaka University. Professor Andou has performed over 7,000 laparoscopic procedures including total laparoscopic radical trachelectomy and nerve-sparing radical hysterectomy. He has also been the recipient of a number of awards including best surgical video in outlining the management of intra-operative injuries.

Dr Mario Malzoni is director of the gynaecological endoscopy department at the Malzoni Medical Centre in Avellino, Italy. He is a specialist in advanced laparoscopic surgery and has performed more than 4000 laparoscopic procedures for adnexal diseases, severe endometriosis, gynaecological malignancies and hysterectomies.

We would like to thank our organising committee and in particular our Scientific Co-Chairs, Dr Kym Jansen and Associate Professor Martin Healey for their tremendous effort in putting together a stimulating and thought provoking programme. A special thanks to Michele Bender and her fantastic team at Conference Connection for their continued excellence and hard work for AGES.

We look forward to welcoming you to Melbourne.

Jim Tsaltas
Vice President AGES
Conference Chair

Alan Lam
President AGES



DAY 1 THURSDAY 24 MARCH

CROWN CONVENTION CENTRE
CROWN PROMENADE HOTEL
PROMENADE ROOMS 1 & 2

0750 **OPEN AND WELCOME** *A Lam, J Tsaltas*

0800 - SESSION I
1000 LAPAROSCOPIC EMERGENCIES: WHEN GOOD THINGS GO BAD

sponsored by Stryker
Promenade Rooms 1 & 2
Chairs: A Lam, J Tsaltas

0800 Gastrointestinal emergencies at laparoscopy *C Murphy*

0820 Management of vascular injuries at laparoscopy
P Field

0840 Anaesthetics and laparoscopic emergencies
P Popham

0900 Debate: Revisiting old wars – Veres vs open entry
Chair: D Molloy

0900 - for Veres *N Collier, P Maher*

0915 - for open entry *M Carey, C Murphy*

0930 Panel discussion and questions

1000 - 1030 Morning Tea and Trade Exhibition

1030 - KEYNOTE LECTURE

1100 *Chair: K Jansen*
DISASTER PREVENTION AND RECOVERY IN LAPAROSCOPIC SURGERY
M Andou

1100 - SESSION II

1230 HOW WELL ARE WE EQUIPPED FOR SURGERY?

sponsored by Johnson & Johnson Medical
Promenade Rooms 1 & 2
Chairs: H Merkur, D Ngan Kee

1100 Keeping safe – some ideas from aviation *R Batt*

1130 What sort of gynaecological surgeon will I be when I complete my training?
J Sgroi

1140 How to best use our surgical training resources *J Abbott*

1155 Managing fatigue in surgery *A Yazdani*

1210 The vision of laparoscopic training in Australia *A Lam*

1230 - THE PERPETUAL DANIEL O'CONNOR LECTURE

1300 *Chair: A Lam*
The origins of pelvic pain in endometriosis *I Fraser*

1300 - 1400 Lunch and Trade Exhibition

1400 - SESSION III
1530 FREE COMMUNICATIONS A

sponsored by Stryker
Promenade Rooms 1 & 2

LAPAROSCOPIC HYSTERECTOMY

Chairs: D Molloy, K Jansen

1400 Total laparoscopic hysterectomy with a large cervical fibroid *Aust T, Reyftmann L, Cario G, Rosen D, Chou D*

1410 Safety of barbed suture closure of vaginal vault at laparoscopic abdominal hysterectomy: a comparison with conventional suture use
Brownfoot FC, Hickey M, Ang WC

1420 The anterior approach to uterine artery ligation; A series of 38 laparoscopic myomectomies and 28 difficult hysterectomies
Aust T, Reyftmann L, Cario G, Rosen D, Chou D

1430 Case series of SILS TLH: an Australian experience
Lee S, Soo S, Ang WC

1440 Six-year review of caseload and complications for an established endogynaecological unit *Fleming T, Aust T, Reyftmann L, Chou D, Rosen D, Cario G, Cooper M, Reid G*

1450 SILS TLH: a Video *Lee S, Soo S, Ang WC*

1500 Prediction of the need for morcellation at total laparoscopic hysterectomy (TLH) from pre-operative 3D volumetric ultrasound-estimated uterine weight
Winder S, Reid S, Mongelli M, Condous G

1510 Analysis of total laparoscopic hysterectomies using KOH Colpotomizer System *Anwar S, Chang T*

1520 Single port total laparoscopic hysterectomy made easy
Siow A

1400 - SESSION III
1530 FREE COMMUNICATIONS B

sponsored by Karl Storz Endoscopy
M5 & M6 Meeting Rooms

PELVIC PATHOLOGY

Chairs: K Karthigasu, A Rosamilia

1400 Cornual haematoma following microwave endometrial ablation: a case report and review of literature
Ghosh B, Chang T

1410 Diagnosis of interstitial cystitis in women with chronic pelvic pain – a prospective observational study
Cheng C, Rosamilia A, Healey M

1420 Case series: chronic pelvic pain and overactive pelvic floor muscle disorder *Saunders N, Morrison S, Ang WC*

1430 Risk management issues surrounding a case of ovarian remnant syndrome: diagnostic and therapeutic dilemmas
Dunkley EJC, Patel PS, Ford R, Evans J, Lam A

1440 Pubic osteomyelitis following laparoscopic paravaginal repair *Rosen D, Sekel R*

1450 Laparoscopic subperitoneal pelvic anatomy: deeper and down
Reyftmann L, Aust T, Cario G, Rosen D, Chou D

CONFERENCE PROGRAM

- 1500 Value of pre-operative ultrasound examination in the selection of women with adnexal masses for laparoscopic surgery *Reid S, Winder S, Hogg R, Condous G*
- 1510 Fertility and pathological outcomes following conservative treatment of complex atypical hyperplasia *Brownfoot FC, McNally O, Ang WC*
- 1520 Quill SRS vs V Loc – video comparisons *Lee S, Soo S, Ang WC*

1400 - SESSION III

1530 FREE COMMUNICATIONS C

sponsored by Johnson & Johnson Medical
Promenade Rooms 1 & 2

PELVIC FLOOR

Chairs: M Carey, D Chou

- 1400 Short-term outcomes of 123 consecutive cases of Elevate® mesh repair for pelvic organ prolapse *Dunkley EJC, Patel PS, Lam A*
- 1410 Ethibond, should we bond? *Amir M, Rosamilia A, Tsaltas J*
- 1420 Optimal fixation of the mesh to the sacral promontory at laparoscopic sacrocolpopexy: critical points *Reyftmann L, Aust T, Cario G, Rosen D, Chou D*
- 1430 Bladder dysfunction following gynecological laparoscopic surgery for benign pathology *Won HR, Maley P, Chetty N, Chan K, Abbott J*
- 1440 Pregnancy management following laparoscopic mesh sacrohysteropexy in a nullipara *Chou D, Gardner K, Aust T, Cario G, Rosen D, Reyftmann L, Miller T*
- 1450 Laparoscopic excision of sacrocolpopexy mesh from the levator ani *Aust T, Reyftmann L, Cario G, Rosen D, Chou D*
- 1500 Fertility preservation in the setting of severe uterovaginal prolapse: a surgical challenge *Smith CJ, Patel P, Dunkley E, Lam A*
- 1510 Laparoscopic sacrohysteropexy: a 6-year experience in uterus-sparing prolapse repair at CARE, Sydney *Patel PS, Dunkley EJC, Lam A*
- 1520 Prophylactic uterosacral ligament vault suspension for posthysterectomy apical support (The PULL APX Study) *Chou D, Reyftmann L, Aust T, Rosen D, Cario G*

1530 - 1600 Afternoon Tea and Trade Exhibition

1600 - KEYNOTE LECTURE

1630 *Chair: J Tsaltas*

SURGICAL MANAGEMENT OF ENDOMETRIAL HYPERPLASIA AND ENDOMETRIAL CANCER

M Malzoni

1600 - SESSION IV

1730 RISKS TO THE UTERUS

sponsored by Olympus
Promenade Rooms 1 & 2
Chairs: S Salfinger, M Healey

- 1630 Can ultrasound diagnose endometrial hyperplasia? *N Woodrow*
- 1645 Conservative management and monitoring of complex atypical endometrial hyperplasia *S Hyde*
- 1700 Endometrial cancer – the risks to pregnancy *K Stern*
- 1715 Panel discussion

1730 WELCOME COCKTAIL RECEPTION

Crown Conference Centre

CONFERENCE INCLUSIONS

Disaster Recovery & Risk Management
AGES XXI ANNUAL SCIENTIFIC MEETING 2011

24-26 March

REGISTRATION FEES INCLUDE:

- Attendance at 'AGES 2011' Conference sessions on Thursday 24, Friday 25 and Saturday 26 March
- All conference publications
- Conference lunches, morning and afternoon teas on Thursday 24 and Friday 25 March, and Conference morning tea on Saturday 26 March
- Welcome Reception Thursday 24 March
- Attendance at Breakfast Sessions on Friday 25 and Saturday 26 March (pre-booking essential)

DAY 2 FRIDAY 25 MARCH

CROWN CONVENTION CENTRE
CROWN PROMENADE HOTEL
PROMENADE ROOMS 1 & 2

0700 TOPICAL BREAKFAST OPTIONAL BREAKFAST SYMPOSIUM

sponsored by Stryker

Crown Towers River Room Level 1

Conference faculty members lead discussions on specific topics. This is a ticketed event. Pre-booking at the Registration Desk is essential. Places are limited.

0800 - SESSION V

1000 LIVE SURGERY

sponsored by Stryker

Promenade Rooms 1 & 2

Chairs: P Maher, G Cario, M McEvoy

Live surgery from Monash Medical Centre

Surgeons: M Malzoni, M Andou

1000 - 1030 Morning Tea and Trade Exhibition

1030 - SESSION VI

1200 DIFFICULT HYSTERECTOMY AND ENDOMETRIOSIS

sponsored by Johnson & Johnson Medical

Promenade Rooms 1 & 2

Chairs: A Yazdani, J Abbott

- 1030 Adenomyosis and endometriosis – one and the same?
M Hickey
- 1045 The impact of adenomyosis on fertility *B Vollenhoven*
- 1100 Is hysterectomy the only treatment for adenomyosis?
P Maher
- 1115 Panel discussion
Panel: M Hickey, B Vollenhoven, P Maher

1130 - KEYNOTE LECTURE

1200 *Chair: A Lam* RISK MANAGEMENT IN THE DIFFICULT HYSTERECTOMY *M Andou*

1200 - KEYNOTE LECTURE

1230 *Chair: I Fraser* INDICATIONS, OUTCOMES AND COMPLICATIONS OF RADICAL TRACHELECTOMY AND RADICAL HYSTERECTOMY *M Malzoni*

1230 - 1330 Lunch and Trade Exhibition

1330 - SESSION VII

1500 FREE COMMUNICATIONS D

sponsored by Stryker

Promenade Rooms 1 & 2

LAPAROSCOPIC TECHNIQUES

Chairs: S Salfinger, H Najjar

- 1330 Can we avoid laparoscopy in most ectopic pregnancies? The experience of our Early Pregnancy Unit
Winder S, Reid S, Pixton S, Condous G
- 1340 Robotic gynaecological surgery at Epworth Eastern Hospital, Melbourne *Manolitsas T*
- 1350 Instant recording and storage in laparoscopic surgery: a learning resource for the trainee and trainer
Georgiou C
- 1400 Laparoscopic hysterectomy for the management of endometrial cancer in the super-morbidly obese
Reid K, Hobson S, Manolitsas T
- 1410 Hasson versus Veress Needle laparoscopic entry: a comparison of time taken to establish a pneumoperitoneum
Fernandes H, Jobling T, McNeillage J, Percy D, Reid K, Manolitsas T
- 1420 The role of transversus abdominis plane block in patients undergoing total laparoscopic hysterectomy: a retrospective review
Pather S, Loadman J, Gopalan D, Rao A, Philp S, Carter J
- 1430 Trans-omental laparoscopic surgery: *Georgiou C*
- 1440 Postoperative pain relief after laparoscopic gynaecological surgery: a pilot study of pre-emptive superior hypogastric plexus block using 0.75% ropivacaine. The LAP-hypoplex study
Chou D, Reyftmann L, Liew A, Aust T, Cario G, Rosen D
- 1450 Laparoscopy for theatre nurses *Georgiou C*

1330 - SESSION VII

1500 FREE COMMUNICATIONS E

sponsored by Johnson & Johnson Medical

M5 & M6 Meeting Rooms

ENDOMETRIOSIS

Chairs: D Hgan Kee, I Fraser

- 1330 Laparoscopic surgery for endometriosis is associated with significant improvements in quality of life as measured by the EHP-30
Kew C, Lam A
- 1340 What is sonovaginography and how can it help the laparoscopic surgeon?
Reid S, Winder S, Reid G, Abbott J, Cario G, Chou D, Condous G
- 1350 Surgical management of deeply infiltrating endometriosis of the urinary tract: the rationale for referral centres
Patel PS, Dunkley EJC, Lam A
- 1400 Pre-operative MRI for assessment of bowel involvement in patients with deep pelvic endometriosis – does timing of menstrual cycle make a difference?
Cameron M, Jagasia N, Readman E, McIlwaine K, Esler S, Maher PJ.

CONFERENCE PROGRAM

- 1410 Is uterine retroversion a marker of pouch of Douglas obliteration in patients with endometriosis?
Patel PS, Dunkley EJC, Luscombe G, Lam A
- 1420 Video presentation. Concomitant diagnosis of endometriosis in patients presenting with symptomatic fibroids: The importance of a thorough inspection at laparoscopy
Dunkley EJC, Patel PS, Lam A
- 1430 Can we predict posterior compartment deep infiltrative endometriosis (DIE) using sonovaginography in women undergoing laparoscopy for chronic pelvic pain?
Reid S, Winder S, Reid G, Abbott J, Cario G, Chou D, Condous G
- 1440 A study of fertility and pregnancy outcomes following the laparoscopic surgical removal of stage 3 and 4 endometriosis
Campbell NT, Maley P, Hooshmand D, Won H, Abbott J
- 1450 Metastatic colonic adenocarcinoma masquerading as severe endometriosis
Patel PS, Dunkley EJC, Lam A

1300 - SESSION VII
1500 FREE COMMUNICATIONS F
sponsored by Olympus
M1 & M2 Meeting Rooms

- 1300 **PREGNANCY, MYOMECTOMY**
Chairs: R Kuhn, B Vollenhoven
- 1330 Hysteroscopic removal of Mirena IUCD with missing threads during pregnancy: A video presentation
Jagasia N, Maher P
- 1340 Tips & tricks in myomectomy – from laparoscopy to LESS
Siow A
- 1350 A video of a laparoscopic myomectomy of a 20 week sized fibroid in a 23-year old woman
Soo S, Mirmilstein V, Lee S, Ang WC
- 1400 MRI guided focused ultrasound (MRgFUS) treatment of fibroids: 12 month follow up
Kaur H, Dobrotwir A, Pun E, Ang WC
- 1410 Why are some ectopic pregnancies characterised as pregnancies of unknown location at the initial transvaginal ultrasound examination? 3D volumetric transvaginal evaluation of the ectopic pregnancy mass
Winder S, Reid S, Pixton S, Condous G.
- 1420 Parasitic fibroids mistaken for malignancy resulting in bowel resection
Aust T, Reyftmann L, Gale P, Chou D, Rosen D, Cario G, Robertson G
- 1430 Outpatient hysteroscopy audit: a comparison of vaginoscopic approach with traditional technique
Jagasia N, McIlwaine K, Readman E, Cameron M, Maher P
- 1440 Where is it! The case of the missing myoma screw
Wang L, Amir M, Tsaltas J
- 1450 Estimation of uterine dry weight from pre-operative 3D uterine volume ultrasound evaluation in women undergoing total laparoscopic hysterectomy (TLH)
Winder S, Reid S, Mongelli M, Condous G

1500 - 1530 Afternoon Tea and Trade Exhibition

- 1530 **SESSION VIII**
HYSTEROSCOPIC SURGERY – NOT WITHOUT RISK
sponsored by Karl Storz Endoscopy
Promenade Rooms 1 & 2
Chairs: K Jansen, A Rosmilía
- 1530 Prevention and treatment of fluid overload
K Jansen
- 1545 Bowel and vascular injuries at hysteroscopic surgery
H Pardey
- 1600 Hysteroscopic resection of fibroids: how big is too big?
J Abbott
- 1615 Can focused ultrasound ablation avoid complications?
A Dobrotwir
- 1630 Risks of pregnancy after global ablation
H Najjar
- 1645 Asymptomatic fibroids – when should we treat?
B Vollenhoven
- 1700 Discussion
- 1715 AGES ANNUAL GENERAL MEETING**
Promenade Rooms 1 & 2

1900 - 1930 GALA CONFERENCE DINNER

Church St Enoteca: 527 Church St, Richmond 3121
P +61 3 9428 7898
Complimentary coach transfers will be provided. Please gather in the foyer of Crown Promenade and the Crown Towers Atrium entrance by 1830.



DAY 3 SATURDAY 26 MARCH

CROWN CONVENTION CENTRE
CROWN PROMENADE HOTEL
PROMENADE ROOMS 1 & 2

0700 THE ROAD TO RECOVERY; TRAINING AND TEACHING FOR SURGICAL COMPLICATIONS AND NEW PROCEDURES OPTIONAL BREAKFAST SYMPOSIUM

sponsored by Karl Storz Endoscopy
Crown Towers River Room Level 1

J Abbott, D Molloy, J Tsaltas

This is a ticketed event. Pre-booking at the Registration Desk is essential. Places are limited.

0800 - SESSION IX 1000 SUCCESSFUL RISK MANAGEMENT IN GYNAECOLOGICAL SURGERY

sponsored by Karl Storz Endoscopy

Chairs: P Maher, H Merkur

- 0800 Practical risk management systems in your practice: are you up to speed? *M McEvoy*
- 0820 Informed consent processes in a busy practice – how do you do it? *R Kuhn*
- 0840 Surgical audit tools as an aid to informed consent *A Obermair*
- 0900 Expert evidence: advice from the experts *N Murdoch*
- 0920 Panel discussion
Panel: M McEvoy, R Kuhn, A Obermair, N Murdoch

1000 - 1030 Morning Tea and Trade Exhibition

1030 - SESSION X 1230 OBSTETRIC DISASTERS AND HAEMORRHAGE

sponsored by Stryker

Chairs: J Tsaltas, A Lam

- Who will manage massive obstetric haemorrhage? *M Quinn*
- 1100 Massive post partum haemorrhage – what to do? *E Wallace*
- 1130 Should the gynaecologist still be practicing obstetrics? *D Molloy*
- 1200 CLOSE AND AWARDS *A Lam, J Tsaltas*

AGES AWARDS

John Kerin Award for
Best Free Communication
sponsored by Covidien

Best Registrar Presentation
sponsored by
Johnson & Johnson Medical

Best Free Communication
sponsored by
Karl Storz Endoscopy

Best Video Presentation
sponsored by B. Braun

CPD AND PR&CRM POINTS

This meeting has been approved as a RANZCOG Approved O&G Meeting and eligible Fellows of this College will earn CPD points for attendance as follows:

Full attendance	22 points
Attendance - 24 March	9 points
Attendance - 25 March	9 points
Attendance - 26 March	4 points

Attendance at the Breakfast sessions - 25 March 1 point
26 March 1 point

Attendance by eligible RANZCOG Members will only be acknowledged following signature of the attendance roll each and every morning of the Congress.

The RANZCOG 'Clinical Risk Management Activity Reflection Worksheet' (provided in the Conference satchel) can be used by Fellows who wish to follow up on a meeting or workshop that they have attended to obtain PR&CRM points.

This worksheet enables you to demonstrate that you have reflected on and reviewed your practice as a result of attending a particular workshop or meeting.

It also provides you with the opportunity to outline any follow-up work undertaken and to comment on plans to re-evaluate any changes made.

Fellows of this College who attend the Meeting and complete the 'Clinical Risk Management Activity Reflection Worksheet' in accordance with the instructions thereon can claim 5 PR&CRM points.

For further information, please contact the College.

AGES XXI Annual Scientific Meeting 2011 qualifies for 4 Interactive Risk Management Points from MIGA. Daily signature of the attendance roll is required for eligibility. Members of MIGA should apply for points to MIGA by 31 March 2011.

PROGRAM ABSTRACTS – THURSDAY 24 MARCH

Session I / 0820-0840

MANAGEMENT OF VASCULAR INJURIES AT LAPAROSCOPY

Field PL

Wield sharp instruments wisely!

Vascular events at laparoscopy range from abdominal wall haematoma, bleeding mesenteric or retro-peritoneal vessels, and gas embolism, to later-presenting false aneurysm, arteriovenous (AV) fistula, organ or limb ischaemia. In a 2002 survey, 21% of AGES members had encountered the exsanguinating threat – major retro-peritoneal vessel injury.

Lesser injury in a haemodynamically stable patient may be clipped or even clamped and sutured laparoscopically.

Major injury with bleeding recognised during or just after laparoscopy is usually treated by rapid laparotomy, control by direct pressure, arterial clamping or venous packing, then suturing or urgently involving a surgeon with vascular experience. If none is available, abdominal packing and closure ('damage control surgery') and judicious resuscitation are recommended before transfer to an appropriate centre.

Angiography and endovascular repair may suit 'unapproachable' injured vessels (e.g. among dense adhesions or sepsis), false aneurysms, AV fistulae or arterial occlusions. Vascular reconstruction or bypass is occasionally needed to repair injury to renal, hepatic or lower limb arteries.

The mainstay of management remains prevention, and keeping sharp instrument tips well clear of the major vessels. Published world and Australian experience does not support any particular entry technique as being free of vascular injuries. Rather, it behoves the operator to insert any sharp instrument with caution, and only after carefully examining the abdomen under anaesthetic before embarking, and elevating the abdominal wall.

References:

1. Survey of entry techniques & complications, AGES. ANZJOG. 2002;42:264-6
2. Recognition & management of major vessel injury during laparoscopy, Sandadi S. et al. Cleveland. J Min Inv Gyn. 2010; 17:692-702
3. Laparoscopic vascular injuries – the Veress debate. VSCC Guidelines. 2010. www.health.vic.gov.au/vscc
4. Veress needle entry technique evidence. ASERNIP-S. 2001, 2010. www.surgeons.org/asernip-s

AUTHOR AFFILIATION: Mr Peter L Field, FRACS; Vascular Surgeon, Royal Melbourne and Epworth Hospitals, Victoria, Australia. Victorian Surgical Consultative Council, Victoria, Australia.

Session I / 0840-0900

ANAESTHESIA AND LAPAROSCOPIC EMERGENCIES

Popham P

Laparoscopy is regarded as safe and with proven benefits during recovery from surgery. However, the technique exposes patients to serious, potentially life-threatening complications. The effects of positioning, gas embolus, gas insufflation, cardiac dysrhythmias and pregnancy on physiology and cardio-respiratory function will be mentioned, together with methods to minimise risk and anaesthetic management options for complications that do occur.

AUTHOR AFFILIATION: Dr Phil Popham; Anaesthetist, The Women's Hospital, Melbourne, Victoria, Australia.

Session I / 0900-0930

DEBATE: REVISITING OLD WARS – VERES VS OPEN ENTRY (FOR OPEN ENTRY)

Carey M

The optimal surgical technique for establishing a pneumoperitoneum for laparoscopic surgery remains controversial. Broadly speaking, there are two methods for establishing a pneumoperitoneum: blind entry and open entry under direct vision. Blind entry is employed by the Veres and direct-entry trocar techniques. Open entry under direct vision is employed by the Hasson and 'vision-port' entry techniques.

Advocates of blind entry techniques for laparoscopy argue that there is no scientific evidence supporting open entry techniques as being safer than blind entry methods. This is an inarguable position only because the prevalence of vascular and bowel perforation injuries at laparoscopic surgery is very low. It has been estimated that an RCT study of some 40,000 subjects would be required to scientifically prove that open techniques are safer than blind techniques for the establishment of a pneumoperitoneum at laparoscopic surgery. Clearly, it is unlikely that such a study will be undertaken. The entry method chosen by an individual surgeon will be dependent on a number of different factors including: the experience and training of the surgeon; patient factors (e.g. prior abdominal surgery, obesity, abdominal masses); failure of the surgeon's preferred entry

Disaster Recovery & Risk Management

AGES XXI ANNUAL SCIENTIFIC MEETING 2011

technique; and the personality of the surgeon. No matter what an individual surgeon's preference is, it is important that O&G trainees receive instruction in the method of Hasson entry. Clinical situations will arise where the Hasson entry technique is much preferred over the Veres technique. For example, a patient at the Royal Women's Hospital, Melbourne, required surgery for a ruptured tubo-ovarian abscess that was further complicated by paralytic ileus. This case was unsuitable for Veres entry and a surgeon not familiar with the Hasson technique would have resorted to a laparotomy incision. This patient underwent successful laparoscopic surgery to treat this life-threatening condition using a Hasson technique.

It is a self-evident truth that surgeries performed under direct vision, or imaging, are intrinsically safer than blind techniques. This is also the case for establishing a pneumoperitoneum for laparoscopic surgery. When a surgeon has the choice of two techniques available it would seem both reasonable and appropriate that the safer technique is chosen. The Hasson technique is intrinsically safer than the Veres needle technique.

AUTHOR AFFILIATION: Dr Marcus Carey; Urogynaecologist, Royal Women's Hospital in Melbourne, Parkville, Victoria, Australia.

Keynote Lecture / 1030-1100

DISASTER PREVENTION AND RECOVERY IN LAPAROSCOPIC SURGERY

Andou M

BACKGROUND: Minimally invasive surgery presents a number of intrinsic challenges, and even more when in complications arise. Accidental injury during minimally invasive surgery is one such complication with postoperative complications another possible repercussion. The basic tenets of injury prevention or 'safe surgery' are understanding, recognising and creating anatomical landmarks. It is also essential to know all the steps which lead to intra-operative injuries. Understanding and having extensive knowledge on the instruments you are using for the procedure, especially energy devices is also a must. Prevention of intraoperative injuries is the best strategy, but once injury occurs, minimally invasive repair in the same operative session is the best option. Intracorporeal suturing skills are the essential key to minimally invasive operative repair along with complete hand-eye coordination. The corner stone of repair are tension-free and angulation-free adaptation or anastomosis, good blood perfusion and removal of questionable tissue. Following these fundamental requirements combined with precise suturing will result in

successful laparoscopic repair and a build the necessary skills for dealing with intra-operative complications.

MATERIALS AND METHODS: Intra-operative recognition of the organ injury is extremely important. If the injury is not found, it is possible that serious postoperative complications will occur. If repair isn't carried out in the same operative session, it often becomes more difficult and more traumatic for the patient.

Techniques for vascular injury repair – temporary bleeding control is the prerequisite for repair of an injured vessel. In this situation we usually apply pressure to the injury site and then use vascular tape for traction or a vascular clamp. We use 4.0 prolene with an atraumatic needle for major vessels and 5.0-6.0 prolene suture for finer vessels and tie with the square knot or surgeons knot. With vascular injury repair is important to involve the whole layer of the vascular wall especially the endothelium and make an everted wound (to prevent thrombosis or aneurysm) – and to use a minimal number of sutures.

For bowel injury repair, mechanical bowel preparation is essential before the operation, especially for colon and rectal injuries. Therefore, in the case of high-risk patients like patients with deeply infiltrating endometriosis or rectal invasion of pelvic malignancies, we administer the low residue diet three days before the surgery and use laxatives.

Bowel injuries are repaired either by suturing (full-thickness bowel wall and superficial seromuscular defects) or stapling (functional end-to-end anastomosis). We suture defects longitudinally to prevent stenosis and make sure that the wound is inverted to prevent leakage as well as adhesion. We stretch the wound, making it easier to suture by suspending one or both extreme edges with 3.0 monofilament suture with a straight needle to the abdominal wall. We sometimes encounter multiple injuries of the small bowel after extensive adhesiolysis. In this situation, segmental resection of the whole injured part and reanastomosis is much easier and safer and less time consuming than attempting suture repair of the multiple injuries. Functional end-to-end anastomosis is advantageous as we can complete the anastomosis without the need for a mini-laparotomy. For this technique all we require are two linear staplers, one 45mm for the resection of the injured site and a 60mm stapler for the reconstruction. Both staplers require two sets of staples for this technique.

Bladder perforation is repaired in two layers. The mucosal layer is closed using 3.0 continuous suture. Then the seromuscular layer is approximated with 2.0 interrupted suture. Ureteral laceration is closed with synthetic 3.0 interrupted suture. When complete

PROGRAM ABSTRACTS – THURSDAY 24 MARCH

transection occurs, end-to-end anastomosis is required. To prevent stenosis at the anastomotic site spatulation is useful. In some cases ureteroneocystostomy is a better option for good blood perfusion than end-to-end anastomosis of the ureter because the bladder has a more ample blood supply than the isolated ureter. We use synthetic 2.0-4.0 interrupted suture.

CONCLUSION: New challenges and more advanced procedures mean new risks and greater chance of complications. Knowledge of anatomy, instruments and skills and the steps which lead to an unsuccessful surgical outcome is the key to 'safe surgery'. As the goal of minimally invasive surgery is to reduce the amount of trauma to the patient, repair of operative injuries should follow this same theme.

Advancing your own intracorporeal suturing skills means greater options available when injuries occur. As intracorporeal injury repair relies heavily on suturing, the quality of the repair depends largely on the ability of the surgeon, making intracorporeal suturing perhaps the most important skill for laparoscopic surgeons to master.

AUTHOR AFFILIATION: Professor Masaaki Andou; Kurashiki Medical Center, Kurashiki, Japan.

Session II / 1100-1130

KEEPING SAFE – SOME IDEAS FROM AVIATION

Batt R

Richard will discuss how human factors principles underpin the way in which the Australian Transport Safety Bureau carries out safety investigations. He will present examples of ways in which human error can be managed, including approaches taken by the aviation industry which are being adopted in other fields such as medicine.

A key principle underlying the ATSB's approach is a focus on system safety and the role of human factors. Very often, it is only by investigating the role of human factors at both the individual and organisational levels that it can be determined how and why an accident or incident occurred. Only with that more complete understanding can appropriate safety action be taken.

A starting point for any human factors investigation is the recognition that human error is a natural part of life. However, while we cannot eliminate human error, we can understand, minimise and control it. A key aspect of managing human error is a 'Systems Approach' to safety that traces contributing safety factors back into the system as a whole, and directs remedial efforts at situations and organisations, rather than individuals.

Essential elements of a human factors approach to safety include the teaching and assessing of non-technical skills in parallel with technical skills training, developing a 'Just Culture' to improve the reporting of adverse events, and using tools such as Threat and Error Management (TEM) and Normal Operations Safety Surveys (NOSS) to improve safety.

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AUTHOR AFFILIATION: Dr Richard Batt; Manager, International Australian Transport Safety Bureau, Canberra, ACT, Australia.

Session II / 1130-1140

WHAT SORT OF GYNAECOLOGICAL SURGEON WILL I BE WHEN I COMPLETE MY TRAINING?

Sgroi J

The challenge of performing modern gynaecological surgery has relegated the age old adage 'see one, do one, teach one' to the past.

Many trainees feel underequipped to face the realities of consultant surgical practice. There are those, who realising their deficiencies seek out additional training in gynaecological surgery; others choose to avoid surgical practice altogether; whilst others still, may find themselves Fellows of The College, working independently yet with varied levels of surgical proficiency.

In order to maintain excellence in patient care The College will be required to attract the best prospective trainees directly from medical school with consideration given to streamlining training based on trainee preferences. In addition, the credentialing of a trainee's capabilities may need to heavily focus on competency rather than time served or number of procedures done.

Possible solutions include the utilisation of new technologies, alternate training venues (private and overseas) and the accreditation of consultants as surgical trainers rather than solely accrediting hospitals.

Disaster Recovery & Risk Management

AGES XXI ANNUAL SCIENTIFIC MEETING 2011

My journey to becoming a consultant will include travel to a developing country and a post overseas in advanced laparoscopy surgery. This, I believe will aid in the development of skills required before attaining my fellowship.

AUTHOR AFFILIATION: Dr Joseph Sgroi; Level IV Registrar at the Royal Womens Hospital, Melbourne, Victoria, Australia.

Session II / 1140-1155

HOW BEST TO USE OUR SURGICAL TRAINING RESOURCES

Abbott J

With an increase in the number and complexity of surgeries available, the ability to train in surgical specialties is problematic. For many years certifiable subspecialty areas of gynaecological surgery have been urogynaecology and gynaecological oncology, although there is an increasing number of benign complex surgeries undertaken without a training curriculum or certification that enable access to operative procedures. The options for using our current surgical training resources need to include:

1. Surgical training commensurate with skill of trainee and consultant.
2. Appropriate knowledge and planned procedure (see operative information sheet).
3. Communication regarding who will do what part(s) of the procedure.
4. Explanation of technique and importance of skill acquisition.
5. Reflection and recognition of areas for improvement and those mastered.

The current surgical training focus is on volume and individual procedures. This is an oversimplistic and outdated mode of training in our specialty and is incompatible with credentialing and teaching of surgery for our specialty. Surgical trainees must be involved in the entire process of surgery (information gathering, decision making, consent, intraoperative and post-operative care) and must have a base for the procedure prior to them coming into the operating theatre, with a plan for the procedure and alternatives for complications and alterations in that plan. The way that we have always trained is about 'an operation', rather than considering the surgical components that make up procedures that are common to many and should be introduced in a stepwise manner. Tissue dissection and handling by approach (vaginally, abdominally, hysteroscopically, laparoscopically) and anatomical location (vaginal wall, pelvic side wall, pelvic floor, abdomen), haemostasis by a variety of methods, and pathology recognition and removal should

be the focus of training as they underpin all surgeries, regardless of the procedure. The limitations of what trainees and consultants should and importantly shouldn't be allowed to undertake surgically should be based on their demonstration of mastery of these skills.

AUTHOR AFFILIATION: Jason Abbott; Academic Associate Professor University of New South Wales, Sydney NSW, Australia. Royal Hospital for Women, Randwick, NSW, Australia.

Session II The Perpetual Daniel O'Connor Lecture / 1230-1300

THE ORIGINS OF PELVIC PAIN IN ENDOMETRIOSIS

Fraser IS

A complaint of pelvic pain is the core symptom of endometriosis, and only a small minority of sufferers do not experience any pain. Yet variability is a critical element of the disease. Many women do have pain but do not complain. In spite of the frequency of pain in these women remarkably little research has been directed towards understanding and effectively managing the pain. The classic gynaecological approach to management has been to cut out the lesions and 'all will be well'. Fortunately, this works reasonably well in the short term, but sadly, in most, there will be a substantial recurrence within one to two years. We wanted to explore potential pain mechanisms and initially set out to study pelvic innervation. We have found major disturbances of small nerve fibres within the uterus and endometriotic lesions, accompanied by local presence of neurotrophins, which have the potential to sensitise sensory nerve fibres to pain stimuli. These neurotrophins are actively expressed in several types of endometrial leukocytes (which are also dysregulated in endometrium and lesions). Endometriosis is a unique inflammatory process, and effective management in the future will almost certainly require suppression of the inflammatory process and targeted control of the pain. Pain control also requires acknowledgement that many women with endometriosis appear to suffer from hyperalgesia and allodynia (indicating a disturbance of the central processing of pain signals), and some will develop neuropathic pain. Earlier diagnosis (in adolescence) should assist in minimising development of the most extensive degrees of disease and associated pain, and routine attention to minimisation of recurrence following surgery (using medical therapies) can produce remarkable long-term benefits.

AUTHOR AFFILIATION: Ian S. Fraser; Professor in Reproductive Medicine University of Sydney

PROGRAM ABSTRACTS – THURSDAY 24 MARCH

Session IV / 1630-1645

CAN ULTRASOUND DIAGNOSE ENDOMETRIAL HYPERPLASIA?

Woodrow N

Transvaginal ultrasound is well established as part of the routine care for premenopausal and postmenopausal women with abnormal vaginal bleeding.

This talk explains the ultrasound appearances of endometrial hyperplasia and some of the difficulties in distinguishing it from other benign and malignant pathologies.

The value of saline hysterosonography is graphically depicted.

Ultrasound plays a pivotal role in the investigation, triage and follow-up of endometrial hyperplasia.

AUTHOR AFFILIATION: Dr Nicole Woodrow FRANZCOG COGU; Director of Clinical Ultrasound Services at the Royal Women's Hospital Parkville, Victoria, Australia

Session IV / 1645-1700

CONSERVATIVE MANAGEMENT AND MONITORING OF COMPLEX ATYPICAL ENDOMETRIAL HYPERPLASIA

Hyde S

Complex Atypical Hyperplasia (CAH) is a histological diagnosis with proliferation of endometrial glands with a greater gland to stromal ratio, a higher back to back crowding of glands lined by cells with cytological atypia. It is often diagnosed as evaluation of abnormal uterine bleeding or in the work up for the infertile

It frequently coexists and progresses to Endometrial cancer (17-53%) if left untreated however 30% can potentially spontaneously resolve.

CAH develops primarily due to over exposure to unopposed oestrogen be it either endogenous (particularly chronic anovulation i.e. PCOS and aromatisation of androgens in peripheral adipose tissue in the obese) or exogenous.

The purpose of treatment is to control bleeding, to reduce the risk of endometrial malignancy and potentially to enable fertility.

Pathological review, and exclusion of ovarian pathology (TVS) is recommended prior to commencement of treatment. If possible it is important to manage the underlying cause

In CAH: Hysterectomy is appropriate in those women who are medically fit and not desirous of child bearing potential.

Conservative treatment is Progesterone based. The type (MPA, Provera, Mirena etc), dose, and duration of treatment varies widely internationally.

GnRH analogues, Danazol, Hysteroscopic resection and Ovulation induction have also been reported.

Reassessment of endometrium as a response to therapy recommendations vary widely but are generally 3-6 monthly sampling until regression of disease.

If there is persistent or progressive disease then consider increased dosage or surgical options. If not actively considering pregnancy then consider maintenance progesterone therapy.

If pregnancy is planned then be active about fertility options due to high risk of recurrence.

Often individualisation of treatment is required.

AUTHOR AFFILIATION: Dr Simon Hyde MBBS, FRANZCOG, MRCOG, CGO Gynaecological Oncologist, Mercy Hospital For Women, Heidelberg, Victoria, Australia

Session IV / 1700-1715

ENDOMETRIAL CANCER – THE RISKS TO PREGNANCY

Stern K

With the increasing prevalence of obesity and metabolic conditions in young women, it is likely that we will see more and more patients in the reproductive age group with endometrial cancer who still desire a pregnancy. In this presentation we will discuss:

1. Prevalence of endometrial cancer in reproductive age group.
2. Implications of decision to preserve uterus on fertility.
3. Implications of decision to preserve uterus on cancer risk.
4. Risks of fertility treatment and pregnancy.
5. Risk to pregnancy of the underlying condition and conservative treatment.
6. Most safe and efficient ways to conceive.

AUTHOR AFFILIATION: Dr Kate Stern; Melbourne IVF & The Womens Hospital, Parkville, Victoria, Australia

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PROGRAM ABSTRACTS – FRIDAY 25 MARCH

Session VI / 1030-1045

ADENOMYOSIS AND ENDOMETRIOSIS – ONE AND THE SAME?

Hickey M

Adenomyosis and endometriosis are commonly diagnosed in women of reproductive age who are symptomatic and those who are asymptomatic. Newer techniques of diagnosing adenomyosis using imaging may not correlate well with traditional histological methods which can only be made after hysterectomy. Changes in the uterine junctional zone may underlie both adenomyosis and endometriosis and may arise from changes in angiogenesis in the subendometrial layer. The evidence supporting a common origin for these conditions will be presented and discussed

AUTHOR AFFILIATION: Martha Hickey; Professor of Obstetrics and Gynaecology, The Royal Women's Hospital and The University of Melbourne, The Royal Women's Hospital, Parkville Victoria, Australia.

Session VI / 1045-1100

THE IMPACT OF ADENOMYOSIS ON FERTILITY

Vollenhoven BJ

Adenomyosis is the presence of ectopic endometrium (the basalis layer) in the myometrium, at least 2.5mm beneath the endometrial/myometrial junction (Levgur 2007). It was traditionally diagnosed in women in their forties who presented with increasingly heavier and more painful periods. The diagnosis was made on histology at hysterectomy. It is estimated that 50-70% of women have adenomyosis, based on examination of hysterectomy specimens as well as autopsy studies (Leyendecker et al 2006). Kunz et al (2005) reported that, based on MRI examination, 28% of women who were mostly >37years were found to have adenomyosis. It has also been reported in adolescents though this is extremely rare (Itam et al 2009). Generally adenomyosis is seen as a generalised uterine condition, more often in the posterior myometrium (Levgur et al 2007a) but can also present as an adenomyoma which may be indistinguishable from a fibroid except at operation, when the planes of the adenomyoma are not defined as they are in a fibroid.

Historically, it was thought that adenomyosis was a disease of fertile women as it was seen to occur with greater frequency in women who had had a larger number of pregnancies and deliveries. It was postulated that with pregnancy and the breakdown of the endometrium/myometrium interface that the disease becomes more likely (Curtis et al 2002). However, this is probably not the case.

With the postponement of childbearing, the condition is now seen in younger women who have never been pregnant or who may be infertile. It is now thought that ongoing uterine peristalsis throughout reproductive life which constitutes ongoing chronic trauma may cause both adenomyosis as well as endometriosis (Leyendecker et al 2002, Leyendecker et al 2004). However the incidence of endometriosis and adenomyosis in the same patient is by no means clear.

As stated previously adenomyosis is a histological diagnosis. However with better ultrasound technology adenomyosis is being diagnosed with increasing frequency. The appearance of the condition on ultrasound is of "venetian blinding". MRI can also be used for diagnosis and in fact is a better tool but its use is limited by general availability and cost (Exacoustos et al 2010).

The issue of adenomyosis and its impact on fertility is a vexed one. There are few studies examining an association between the two. The matter may be further complicated if the woman also has endometriosis as the latter may be the more significant factor. A retrospective study of 74 couples, with endometriosis, 27% of whom had ultrasound diagnosed adenomyosis, undertaking IVF, showed that there was no difference in clinical pregnancy rate between those with and without adenomyosis (Mijatovic et al 2010). The treatment of adenomyosis to enhance pregnancy has never been tested in well designed trials. The majority of the evidence for either medical or conservative surgical management of adenomyosis is retrospective, uncontrolled and subject to bias. In addition the age of the woman obviously plays a significant part in infertile patients who may also have adenomyosis. So what do you do in a woman who has otherwise unexpected infertility and who has adenomyosis. Treat her as you would another couple where the woman does not have this condition. Whether adenomyosis is associated with miscarriage is even more unclear.

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Disaster Recovery & Risk Management

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AUTHOR AFFILIATION: Associate Professor Beverley J Vollenhoven Ph.D., FRANZCOG., CREI; Department of Obstetrics and Gynaecology, Monash University, Women's and Children's Program, Southern Health, Monash IVF, Australia.

Session VI / 1100-1115

IS HYSTERECTOMY THE ONLY TREATMENT FOR ADENOMYOSIS?

Maher PJ

Adenomyosis is diagnosed when endometrial glands and stroma are present in the uterine myometrium. It affects up to 20% of women in the reproductive age.

The presentation may be multi-symptomatic but the most common symptom is menorrhagia then painful periods and painful intercourse.

Importantly adenomyosis can be asymptomatic. The diagnosis is made for certain by histological assessment of the extirpated uterus. Alternative diagnostic tools include TVUS and MRI.

The characteristic change seen at these investigations is thickening of the junctional zone.

Traditionally the treatment options were limited by the ability to be certain of the diagnosis. Many conservative medical options have been tried including anti-PGs, sex hormones, danazol and GnRH analogues. These drugs do not attack the disease specifically but can provide symptomatic relief.

Conservative surgical options include endo-myometrial ablation, laparoscopic adeno-myolysis and focal excision of adenoma tissue.

The ability to pursue conservative approaches depends on the patient's age, desire for future fertility, the extent of the disease and surgical skill of the attendant gynaecological surgeon.

Hysterectomy does remain the ultimate solution to the adenomyosis problem but alternatives do exist that can prolong the conservative approach to this poorly understood condition.

AUTHOR AFFILIATION: Associate Professor Peter J. Maher; University of Melbourne and Mercy Hospital Melbourne, Victoria, Australia.

Keynote Lecture / 1130-1200

RISK MANAGEMENT IN THE DIFFICULT HYSTERECTOMY

Andou M

BACKGROUND: Hysterectomy is one of the most frequently performed operations in gynaecology. With the hysterectomy as the basic procedure, it is possible to expand the scope of the operation to take in more complicated procedures like deep endometriosis or malignancies. I started my career with pure vaginal hysterectomies and performed 6350 cases from 1989. In order to expand the frontier of the procedure more I introduced laparoscopy in 1997. I then aimed to develop techniques to apply laparoscopy to more difficult and challenging cases. In this session I will introduce our techniques for difficult hysterectomy cases including the methods we use to prevent intraoperative injuries and the skills to help make these challenging procedures a success.

MATERIALS AND METHODS: More than 3014 TLH and 345 LH cases have undergone surgery for benign conditions such as uterine fibroids or endometriosis up until December 31st 2010. My laparoscopic hysterectomy is characterised by the initial isolation of the course of the ureter by separating the uterine artery. This ensures that the ureter is not damaged in the course of the procedure and also acts as an important anatomical landmark. An important point in designing any procedure is reproducibility. In order to customise our approach, even in these kinds of difficult cases, we use a vaginal fornix delineator. This allows us to mobilise the bladder, ureter and rectum outside the incision line and prevents the leakage of gas during colpotomy and also during vaginal closure. In the case of Douglas pouch obliteration, rectal adhesiolysis is of paramount importance to ensure that the hysterectomy proceeds safely. We start to dissect the rectum from the posterior aspect of the cervix through an artificially created space we call the inner pararectal space. We then dissect from the lateral side circumferentially to elucidate the rectal contour and to find the exact adhesion point of the cervix and rectum. Finally the most fibrous part can be safely dissected with scissors without injuring any of the organs involved. This potential surgical space-orientated procedure can be adapted to deeply infiltrated endometriosis and malignancy cases. To proceed with a safe dissection the basic tenets of my procedure are following the correct plane, namely, deciding the exact incision line as well as the placement of tension on the incision line by applying counter traction and/or pressure.

RESULTS: The largest TLH uterine fibroid was 3700g. For TLH fibroid cases, operative duration averaged 41-365min). For TLH

PROGRAM ABSTRACTS – FRIDAY 25 MARCH

endometriosis, operative duration was 57-370min (depending on additional procedures). Only one endometriosis case underwent blood transfusion. 4 TLH cases experienced conversion to laparotomy due to severe adhesion and a huge intraligamentary fixed fibroid. 5 cases experienced conversion to vaginal hysterectomy due to intraoperative bleeding. 9 cases required reoperation, 4 laparoscopic, 5 laparotomic, due to severe complications (4 ureteral stenosis, 2 intestinal obstruction, 2 bowel injuries, 1 postoperative bleeding). To date, our open hysterectomy cases only number 1.7% in benign cases.

CONCLUSION: Minimally invasive hysterectomy is the mainstay of gynaecologic treatment. Understanding and mastering basic procedures allows the expansion of the surgery to encompass more difficult and challenging cases. Patients who benefit from minimally invasive approaches are those who must undergo more extensive procedures. Minimally invasive surgery is an important development in patient care.

AUTHOR AFFILIATION: Professor Masaaki Andou; Kurashiki Medical Center, Kurashiki, Japan.

Session VIII / 1545-1600

BOWEL AND VASCULAR INJURIES AT HYSTEROSCOPIC SURGERY

Pardey J

The lecture discusses the pre disposing situations, and recognition of uterine perforation.

It's possible complications and the management plans that should be in place.

AUTHOR AFFILIATION: Dr John Pardey; Nepean Hospital, Nepean Private Hospital, Kingswood NSW Australia, Macquarie University, NSW, Australia.

Session VIII / 1600-1615

HYSTEROSCOPIC RESECTION OF FIBROIDS: HOW BIG IS TOO BIG?

Abbott J

The issues that will determine the answer to this question include the size of the fibroid, its location within the cavity, the depth of penetration into the myometrium, the availability of appropriate surgical equipment and monitoring and the experience of the

surgeon. For submucous fibroids, non surgical techniques such as uterine artery embolisation and MR guided focused ultrasound should be considered only in a research setting at this time. Possible alternatives to myomectomy such as conservative, medical and more radical surgical steps including hysterectomy must also be considered. The primary driver to the size of the fibroid that can be approached is the ability to safely remove the pathology with minimal risk to the patient. This requires fluid balance measurement with strict adherence to prevention of fluid absorption leading to electrolyte imbalance. Whilst 3cm has been reported to be the size of fibroid that can be safely removed by most gynaecologists, larger fibroids can be removed with a number of surgical sessions (the duration of which is limited by fluid absorption) and monitoring of electrolytes post-operatively is appropriate. The adjunctive use of GnRH analogues which may reduce fibroid size by up to 60% within three months of use can assist with reducing the initial size of the fibroid before surgery, but is not a treatment of itself, since an increase in the size of the fibroid following treatment is common. When asking the question how big is too big, the following must be considered:

1. What is the indication for the surgery?
2. What are my own skill limitations?
3. Do I have the appropriate monitoring for this procedure?
4. Is the patient informed that multiple procedures may be necessary?

AUTHOR AFFILIATION: Jason Abbott; Academic Associate Professor University of New South Wales, Sydney NSW, Australia. Royal Hospital for Women, Randwick, NSW, Australia.

Session VIII / 1630-1645

RISKS OF PREGNANCY AFTER GLOBAL ABLATION

Najjar H

Endometrial ablation has been performed for over three decades as an alternative to hysterectomy in women with dysfunctional-uterine bleeding unresponsive to medical treatment. However, unlike hysterectomy, this minimally invasive procedure is not an effective means of contraception. Pregnancy following this procedure has been reported, but the risks and complications related have not been well documented. The risks of spontaneous miscarriage and Ectopic pregnancy are high during the first trimester. Abnormal placentation leading to IUGR or FDIU are likely outcomes if the pregnancy continues beyond the second trimester. There is also an increased risk of premature labour. Hysteroscopic or Laparoscopic sterilisation is often performed with Endometrial Ablation.

Disaster Recovery & Risk Management

AGES XXI ANNUAL SCIENTIFIC MEETING 2011

Counselling about contraceptive options at the time of the procedure is paramount.

AUTHOR AFFILIATION: Dr Haider Najjar; Monash Gynaecology Endoscopy Unit, Melbourne IVF Monash University, Clayton, Victoria Australia.

Session VIII / 1645-1700

ASYMPTOMATIC FIBROIDS – WHEN SHOULD WE TREAT?

Vollenhoven BJ

The majority of fibroids are asymptomatic. One third may cause symptoms, the majority of symptoms are related to bleeding problems namely menorrhagia. Other symptoms are pressure related symptoms such as urine frequency most commonly caused by an anterior fibroid pressing on the bladder.

Therefore, if a patient has no symptoms what should a clinician do about her fibroids. The decision made will depend on the age of the woman, her fertility status and the size of the fibroids and their position.

1. If completely asymptomatic, woman in her 40s, who is not interested in fertility, don't do anything apart from watching the growth of the fibroid/s. An ultrasound can be performed every 1-2 years to examine growth. Fibroids generally grow slowly although around the time of menopause when there are large fluctuations in oestrogen concentrations there may be a growth spurt. Short term growth spurts are common and short lived and the changes are diluted over longer time intervals (Day Baird et al 2011). The issue that patients are concerned about is whether their fibroid/s may be or become malignant if not removed. A benign tumour does become a malignancy. On a molecular level leiomyomas are different to leiomyosarcomas.
2. Fibroids may be present in 5-10% of couples with infertility and the presence of fibroids appears to be the only identified abnormality in 1-2.5% (Buttram & Reiter 1981). If an infertile asymptomatic woman has fibroids consideration should be given to myomectomy especially when the infertility is idiopathic and the fibroid is intramural (see below) and especially if it is submucosal. There is no evidence that subserosal fibroids affect fertility. Whether fertility is enhanced after myomectomy is based on retrospective data and most studies where IVF is concerned have shown an improvement in pregnancy rate only when an intramural fibroid >4cm is removed if the fibroid distorts or

impinges the uterine cavity (Rackow & Arici 2005). Some studies have however shown no change in pregnancy rate especially when an intramural or subserosal fibroid that does not impinge the cavity is removed (Rackow & Arici 2005). If a patient who is young and has a good response to IVF with prior transfer of excellent embryos and is not pregnant, consideration should be given to myomectomy if the fibroid is large, intramural and not distorting the cavity.

3. Subserosal fibroids in an asymptomatic women need to be removed based on patient desire for fertility and fibroid size. Large subserosal fibroids >7cm should be removed (Ramzy et al 1998) as they may cause more physical discomfort for a patient with an enlarging uterus.
4. If the couple has a history of first trimester miscarriage, there is no evidence that the presence of fibroids (other than submucosal) have an affect on the incidence of spontaneous abortion (Laughlin et al 2009).

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AUTHOR AFFILIATION: Associate Professor Beverley J Vollenhoven Ph.D., FRANZCOG., CREI; Department of Obstetrics and Gynaecology, Monash University, Women's and Children's Program, Southern Health, Monash IVF, Australia.

PROGRAM ABSTRACTS – SATURDAY 26 MARCH

Session IX / 0800-0820

PRACTICAL RISK MANAGEMENT IN YOUR PRACTICE: ARE YOU UP TO SPEED?

McEvoy M

A risk management practice system is any patient interaction that may impact positively or negatively on the patient's likelihood of complaint to authorities like hospital boards, AMA, AHPRA or a lawyer.

Data from RANZCOG suggest only 3% legal claims go to court, 76% are settled and 21% discontinued. Sterilisation laparoscopy and hysterectomy remain the most frequent procedures leading to claims, injury to surrounding structures the biggest area of claim with delay in diagnosis, failure to warn and incorrect choice of procedure the main secondary factors leading to claim.

Litigation often reflects on communication with health professionals and the perception of how they were looked after during a major complication rather than the severity of the complication itself.

The AGES members survey in 2007 showed that in actual practice our members had a widely disparate risk management practice. One suspects that this could be markedly improved with consequent reductions in premiums and better Fellow confidence. One suspects that the younger generations of gynaecologists are better at consent than the possibly more patronising stance of the older members. We still have a lot to learn.

Communication skills, front of house staff selection and training, physical ambience of practice, availability of chaperone, waiting times, use of information leaflets, websites, written and verbal consent processes with time to digest, telephone contact availability, staff message triage and delivery, recall systems for follow up, full financial information and gap requirements, ancillary billings from assistants and anaesthetists, respect for confidentiality and privacy issues, communication with the referring doctor, consultation with colleagues, written preparation for theatre lists, availability to further discuss proposed operation, pre-anaesthetic checks, disabled access, accurate operative notes especially if a difficult procedure, and operative imaging e.g. placement of clips at sterilisation are all important risk management systems and will be discussed.

Discussing risks and consent openly and involving the patient in decision making is essential to establish a realistic perception of outcome. Don't overoperate for financial reasons. Don't make false claims to Medicare or health funds. Keep your integrity intact. Join AGES and talk to and support your colleagues. They might be your expert witness report writers sometime!

Beware the difficult patient and spend more time with them; cancel if you are not happy to proceed or ask for another opinion. Cross refer to your colleagues. Note their ambivalence and concerns. Listening to people's real concerns and communication skills are essential.

When complications occur see the patient early, order appropriate imaging early and discuss with colleagues. Delay in diagnosis is a frequent reason for pressing legal claims. Open disclosure of events is encouraged.

Be honest with your patients and colleagues and discuss any complications you have and how you handled them with your junior colleagues as an educational tool.

I declare I have no conflicts of interest.

AUTHOR AFFILIATION: Dr Michael McEvoy; Gynaecologist, Women's and Children's Hospital, North Adelaide, South Australia, Australia.

Session IX / 0820-0840

INFORMED CONSENT PROCESSES IN A BUSY PRACTICE – HOW DO YOU DO IT?

Kuhn R

Informed consent must include a description of the proposed treatment, ideally supplemented by written information, discussion of treatment options, explanation of the potential benefits of the proposed treatment, and the likely outcome if a decision is made not to proceed with the proposed treatment.

All possible complications that may influence the patient's decision to proceed with treatment require documented discussion.

It should include financial consent clearly quoting estimated 'out of pocket' costs.

Obtaining informed consent should, however, not take longer than the actual proposed treatment.

Simple, but complete, time efficient consent forms will be presented that are adaptable to most clinical situations, but also provide a template for your individual practice.

Finally, all consent consultations should conclude with the question: Do you have any other questions or concerns? and the response documented.

AUTHOR AFFILIATION: Dr Raphael Kuhn; Melbourne IVF, East Melbourne, Victoria, Australia.

Disaster Recovery & Risk Management

AGES XXI ANNUAL SCIENTIFIC MEETING 2011

Session IX / 0840-0900

SURGICAL AUDIT TOOLS AS AN AID TO INFORMED CONSENT

Obermair A

Ten thousand to 20,000 patients are estimated to die each year as a result of a surgical complication in Australia, which is an equivalent of one or two jumbo jets quietly crashing every week. Complications not only cause pain and suffering but are also estimated to cost \$1-2 billion in direct medical costs. Nearly half of all surgical complications can be considered as preventable. Factors leading to surgical complications include patient factors (pre-existing morbidity), faulty systems or processes (inadequate support), surgical complexity (unscripted situations), surgeon error and combinations of the above.

Clinical audit refers to a process of reflection that triggers a clinician's behaviour change. While clinical audit has become established in a number of surgical specialties, in gynaecology and obstetrics it is not.

Steps to overcome barriers to audit are:

1. Increase your knowledge about harm and its preventability;
2. Challenge your attitude ('I actually have no issue with complications');
3. Make use of available technology (e.g. www.surgicalperformance.com) and commence audit. Audit may include standard's based audit, critical incident monitoring, peer review and patient surveys.

Advantages of clinical audit include enhanced information and assurance of patients as part of the consenting process, overall reduced number of complications (by up to 50%), and availability of your own database including a health check of your surgical practice (including benchmarking) at your fingertips.

AUTHOR AFFILIATION: Professor Andreas Obermair^{1,2};

1. Gynaecological Oncologist, Greenslopes Private Hospital, Greenslopes QLD
2. Surgical Performance (www.surgicalperformance.com).

Session X / 1030-1100

WHO WILL MANAGE MASSIVE OBSTETRIC HAEMORRHAGE?

Quinn M

The leading causes of maternal deaths in Australia are amniotic fluid embolism, thromboembolism and hypertension. Cardiac disease, psychiatric related causes and nonobstetric haemorrhage

are the main indirect causes of maternal deaths. Although maternal mortality as a result of major haemorrhage has declined in Western nations, peri-partum haemorrhage remains a leading cause of maternal and fetal morbidity and mortality. The increased rate of Caesarean Section and the increased sophistication of modern imaging has led to a rise in the prepartum diagnosis of placenta accreta and percreta, both situations which can (and should) strike terror in the heart of the obstetrician and has led to the need for a clear management plan involving a large experienced team and a logistical expertise worthy of our most sophisticated companies.

Each team needs a leader and that person needs to be the surgeon in charge of the case. Patient information counselling and consenting needs to be undertaken by one person where possible. This ensures that confusion is avoided.

The management plan must include timing of the operation to ensure all players can be available, ordering of blood to be in the theatre, ensuring the right instruments are on the table and that senior nurses are scrubbed, imaging on the screen, plenty of time for anaesthetic preparation and a surgical plan involving abdominal and uterine incisions, whether the placenta is to be left insitu, whether hysterectomy is to be done, whether the aorta needs to be clamped, whether ureteric catheters are needed and whether the iliacs will be ligated or not.

The placement of the internal iliac catheters pre-op will have been discussed as well as the surgical approach, which will depend on whether the placenta is just adherent or all the way through the wall and involving the bladder. These can be the most challenging of surgical cases and the most anxiety provoking. Share the pain!

AUTHOR AFFILIATION: Professor Michael Quinn; Consultant Gynaecological Oncologist Royal Women's Hospital, Parkville and Peter MacCallum Clinic, East Melbourne, Victoria, Australia.

Session X / 1100-1130

MASSIVE POST-PARTUM HAEMORRHAGE – WHAT TO DO?

Wallace EW

Massive obstetric haemorrhage remains a terrifying ordeal for all involved – woman, partner, midwife, and specialist alike. Thankfully, while massive obstetric bleeding now very rarely results in a maternal death in the developed world it continues to be a major contributor to the burden of severe maternal morbidity – being the most common indication for admission of an obstetric patient to intensive care in

PROGRAM ABSTRACTS - SATURDAY 26 MARCH

Australia. Of course, in the developing world obstetric haemorrhage remains the most common cause of maternal death.

The key challenge facing those providing care for the woman with a massive postpartum bleed is the rapidity with which she can lose circulating volume. In non-pregnancy uterine blood flow is about 60mLs/minute. At term pregnancy this is about 1000mLs/minute – an increase principally due to the remodelling of the uterine vasculature by extravillous trophoblast. Not only does this remodelling allow a uterine blood flow that is about 20% of total cardiac output, it also strips the uterine blood vessels of any intrinsic mechanism to cessate blood loss – in early pregnancy trophoblast cells have removed the smooth muscle in the tunica media. Thus, uterine atony – the most common cause of massive postpartum haemorrhage – could lead to total exsanguination within 5-10 minutes.

Reviews of individual cases of maternal mortality or severe morbidity secondary to massive postpartum haemorrhage repeatedly reveal that suboptimal care often contributes to the severity of any

adverse outcome. Inexperience, lack of preparedness, of either resource infrastructure and/or personnel, or delayed or inadequate responses can easily convert an urgent but manageable emergency into one of critical, life-threatening proportions with most profound adverse outcomes.

In this session, a systematic, escalating approach to the management of massive postpartum haemorrhage will be presented – the 'what to do'. The importance of adequate staff training, resource preparedness, and proactive intervention will be discussed, providing some useful tools such as templates for rapid clinical estimation of blood loss and massive transfusion protocols. The medical and surgical management of postpartum haemorrhage will be highlighted, including consideration of longer term outcomes.

AUTHOR AFFILIATION: Professor Euan M Wallace; The Ritchie Centre, Department of Obstetrics and Gynaecology, Monash University and Women's and Children's Program, Monash Medical Centre, Southern Health, Clayton, Victoria, Australia.



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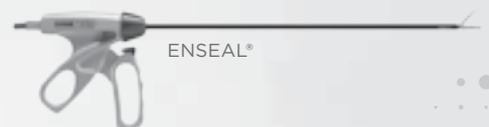
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FREE COMMUNICATIONS SESSION A THURSDAY 24 MARCH

Session A / 1400-1410

TOTAL LAPAROSCOPIC HYSTERECTOMY WITH A LARGE CERVICAL FIBROID

Aust T, Reyftmann L, Cario G, Rosen D, Chou D

A 47-year old woman presented with menorrhagia and pelvic discomfort due to a 16 week size fibroid uterus. The cervix was displaced anteriorly by a 14cm cervical fibroid.

She underwent a total laparoscopic hysterectomy with bilateral uterine artery ligation (UAL). At the operation the cervix was difficult to instrument and the cervical fibroid was partially retroperitonealised. Large vessels were seen in the broad ligament. The uterus was removed vaginally after morcellation with a total weight of 1562g.

She went on to make a good recovery apart from some post operative lethargy due to anaemia.

This video shows the challenges and techniques used to approach such a difficult case.

AUTHOR AFFILIATION: T. Aust, L. Reyftmann, G. Cario, D. Rosen, D. Chou; Sydney Womens Endosurgery Centre, St George Private Hospital, Kogarah, NSW, Australia.

Session A / 1410-1420

SAFETY OF BARBED SUTURE CLOSURE OF VAGINAL VAULT AT LAPAROSCOPIC ABDOMINAL HYSTERECTOMY: A COMPARISON WITH CONVENTIONAL SUTURE USE

Brownfoot FC, Hickey M, Ang WC

OBJECTIVE: The Quill suture is a new design that incorporates tiny barbs spaced evenly along the length of the suture cut facing opposite directions from the midpoint. Once pulled through tissue in one direction it will resist movement in the opposite direction, negating the need for a knot. At laparoscopic hysterectomy the vaginal vault is closed with suture material, therefore a potential benefit in using Quill to reduce operating time, improve healing and reduce infection risk¹. Despite extensive laboratory and animal testing showing that tensile strength and wound holding capacity in the barbed suture² is superior to conventional suture there has been limited human studies at laparoscopy¹. The primary outcome was therefore to determine if total operating time would be reduced using Quill. Other factors assessed were complication rates at operation,

length of hospital stay, post operative analgesia, six week post operation complications.

STUDY DESIGN: This study is a retrospective case control study spanning use of the Quill suture during the past 12 months at The Royal Women's Hospital. Patients that have had a laparoscopic hysterectomy where the vault has been closed with Quill suture were compared in a 3:1 ratio with women that had a laparoscopic hysterectomy where the vault was closed with conventional suture. A search was conducted using our theatre database to identify all women that had Quill and conventional suture to repair the vaginal vault over the 2009-2010 period. Patient histories were accessed and outcomes were recorded.

RESULTS: 128 women were included in the study in a ratio of three conventional suture to one Quill suture. There were no significant differences between age, body mass index, past history of abdominal surgery, size of uterus, experience of surgeon, intra-operative injury of the two groups. There was a trend toward a reduction in total operating time of six minutes when Quill was used however this was not significant (RR -.634, 95%CI -28.6-14.7). Post operative complications occurred equally between the groups.

CONCLUSION: A novel bidirectional barbed suture was evaluated at laparoscopic hysterectomy over a 12 month period. The use of the suture did not increase total operative time. Post operative complications were the same between groups. Prospective studies are required to further evaluate the benefits of the Quill suture.

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AUTHOR AFFILIATION: F. C. Brownfoot, M. Hickey, W. C. Ang; Royal Women's Hospital, Parkville, Victoria, Australia.

FREE COMMUNICATIONS SESSION A THURSDAY 24 MARCH

Session A / 1420-1430

THE ANTERIOR APPROACH TO UTERINE ARTERY LIGATION; A SERIES OF 38 LAPAROSCOPIC MYOMECTOMIES AND 28 DIFFICULT HYSTERECTOMIES

Aust T, Reyftmann L, Cario G, Rosen D, Chou D

Ligation or occlusion of the uterine arteries (UA) can be useful in reducing intraoperative blood loss during laparoscopic myomectomy and can thus mean the difference between completing the procedure laparoscopically and having to convert to an open procedure. In our unit this technique is also used for difficult total laparoscopic hysterectomy (TLH) in such situations as multiple large fibroids and frozen pelvis due to severe endometriosis.

A number of methods to perform laparoscopic UA ligation have been described generally involving a posterior approach (through the posterior broad ligament) or a lateral approach (through a peritoneal incision lateral to the ovarian vessels) and may involve extensive dissection of the side wall with retrograde tracking of the umbilical ligament. In cases with very large fibroids filling the pelvic cavity, access to the posterior broad ligament and lateral pelvic sidewall can be difficult and our anterior approach to the UA through the anterior broad ligament makes ligation feasible. This anterior approach also requires a less extensive dissection than those methods previously described. We report on our experience of laparoscopic UA ligation through an anterior approach of 38 cases of myomectomy and 28 cases of difficult TLH.

Thirty eight patients with large or multiple uterine fibroids underwent laparoscopic myomectomy between November 2006 and November 2010 at our unit. All laparoscopic myomectomies with ligation of the uterine artery were completed successfully.

The mean number of myomas removed were 1.67 (range 1-3), with a mean diameter of 115mm and a mean total weight of 398g (100-1100). The average estimated blood loss was 284ml (50-1400) although the blood loss was only estimated by the surgeon and not measured directly.

We have also used this anterior approach in 28 patients undergoing laparoscopic hysterectomy with a mean uterine weight of 838g. In this series one post operative blood transfusion was necessary and one patient required conversion to laparotomy.

The anterior approach to uterine artery ligation is presented as an alternative method for UA occlusion during laparoscopic myomectomy or hysterectomy, especially when access to the posterior broad ligament is compromised.

AUTHOR AFFILIATION: T. Aust, L. Reyftmann, G. Cario, D. Rosen, D. Chou; Sydney Womens Endosurgery Centre, St George Private Hospital, Kogarah, NSW, Australia.

Session A / 1430-1440

CASE SERIES OF SILS TLH: AN AUSTRALIAN EXPERIENCE

Lee S, Soo S, Ang WC

Single port surgery, known by several eponyms, extends the concept of minimally invasive intervention. It requires unique instrumentation, specialised equipment and new skills.

The equipment is mostly disposable and manufactured by several device companies. Recent experience in the United States has been positive. Initial data has suggested adequate safety with possible improved patient outcomes especially with regards to post operative pain and greater cosmesis.

The laparoscopic surgeon faces a new paradigm in mastering the lateralisation of flexible graspers through this single incision combined with extra degrees of movement in order to mimic traditional multiport laparoscopy.

The authors describe their experience with their initial cases of single incision laparoscopic surgery – total laparoscopic hysterectomy (SILS-TLH). The patient demographics and case selections are described.

The presentation includes the discussion of implementation of new technology and pre operative preparation in an artificial environment. The issues encountered during surgery and methods used to overcome these shortcomings are outlined.

Complete data has been collected prospectively with respect to patient demographics, specific peri operative outcomes, with particular focus on major complications, operative time, length of stay and patient satisfaction.

AUTHOR AFFILIATION: S. Lee, S. Soo, W. C. Ang; The Royal Women's Hospital, Parkville, Victoria, Australia.

FREE COMMUNICATIONS SESSION A THURSDAY 24 MARCH

Session A / 1440-1450

SIX-YEAR REVIEW OF CASELOAD AND COMPLICATIONS FOR AN ESTABLISHED ENDOGYNAECOLOGICAL UNIT

Fleming T, Aust T, Reyftmann L, Chou D, Rosen D, Cario G, Cooper M, Reid G

The data from a multicentre gynaecological endoscopic unit have been retrospectively reviewed to assess the distribution of gynaecological procedures undertaken and the incidence of complications associated with these procedures. The practice consists of five advanced laparoscopic surgeons and cumulative data encompasses greater than seven thousand procedures. More than 85% of surgical activity in this unit is comprised of major gynaecologic operations, including total laparoscopic hysterectomies, laparoscopic pelvic floor repairs (in particular laparoscopic mesh sacrocolpopexy), laparoscopic resection of endometriosis and laparoscopic myomectomies.

Despite the preponderance of complex surgery, the complication rate remained low at less than 0.6%. Entry-related injuries represent almost 15% of all complications, and did not appear to be significantly associated with the method of attaining abdominal access for pneumoperitoneum (Hasson, Verres, direct entry and Palmer's point). Conversion to laparotomy was an infrequent complication at less than 0.4%, and this rate appeared to decline over the six-year review period with an increasing tendency to manage complications laparoscopically. Injury to organs or vessels occurred in less than 0.7% of cases, and in almost half of these cases the injury was managed independently by the gynaecological surgeon, while the remainder required multidisciplinary management.

Further discussion will be granted to complications warranting more specific information. These cases include one post operative death, a small intestinal injury attributable to verres entry, a return to theatre with vaginal vault angle bleeding post laparoscopic hysterectomy, an unanticipated endometrial cancer discovered in a patient who had uterine morcellation during her laparoscopic hysterectomy and an interesting case of pubic osteomyelitis following laparoscopic paravaginal repair.

It is important to reflect on audit data in reference to other similar units in order to maintain surgical standards. Literature review suggests comparative rates of major complications among units with an analogous percentage of major operative cases. This cohort of retrospective data represents the largest amassed body of audit from a single unit in published evidence.

AUTHOR AFFILIATION: T. Fleming, T. Aust, L. Reyftmann, D. Chou, D. Rosen, G. Cario, M. Cooper, G. Reid; Sydney Women's Endosurgery Centre (SWEC). St George Private Hospital, Kogarah, NSW, Australia.

Session A / 1450-1500

SILS TLH: A VIDEO

Lee S, Soo S, Ang WC

Single port surgery, also known by many other eponyms, is still rarely practised in Australia. This is due to the lack of appropriate instrumentation, and equipment. In this video, the authors present key elements of single incision laparoscopic hysterectomy (SILS hysterectomy).

The rationale, peri-operative preparation & case selection are discussed as well as common difficulties experienced, and trouble-shooting approaches.

AUTHOR AFFILIATION: S. Lee, S. Soo, W. C. Ang; The Royal Women's Hospital, Parkville, Victoria, Australia.

Session A / 1500-1510

PREDICTION OF THE NEED FOR MORCELLATION AT TOTAL LAPAROSCOPIC HYSTERECTOMY (TLH) FROM PRE-OPERATIVE 3D VOLUMETRIC ULTRASOUND-ESTIMATED UTERINE WEIGHT

Winder S, Reid S, Mongelli M, Condous G

OBJECTIVE: To validate an algorithm to predict the need for morcellation at TLH from pre-operative 3D volumetric ultrasound-estimated uterine weight and patient characteristics.

METHODS: This is an ongoing prospective study on women undergoing TLH. Data collected includes woman's age, parity, height, weight, 3D ultrasound estimated uterine volume, blood loss and dry weight as measured by our pathology service. Volume data sets were analysed using virtual organ computer-aided analysis (VOCAL) with regards to the uterine volume. The uterine volume was manually calculated with VOCAL in the longitudinal plane with 30 degrees rotation steps. A previously published algorithm to estimate the probability of morcellation was applied to this database.

RESULTS: A total of 50 cases had complete data suitable for testing of this algorithm. The mean age was 45.5 years (SD 6.4), the ultrasound estimated volumes ranged from 26.4ml to 1507ml.

FREE COMMUNICATIONS SESSION A THURSDAY 24 MARCH

Morcellation was required in 20/50 cases. The algorithm was correct in predicting the need for morcellation for all of these cases. The sensitivity 61%, specificity 100%, PPV 100% and NPV 82%. The overall accuracy of the method was 76%.

CONCLUSION: The need for morcellation at TLH can be predicted before surgery using 3D ultrasound with a fair degree of accuracy.

AUTHOR AFFILIATION: S. Winder, S. Reid, M. Mongelli, G. Condous; Acute Gynaecology, Early Pregnancy And Advanced Endosurgical Unit, Nepean Hospital, Penrith, NSW, Australia.

Session A / 1510-1520 **ANALYSIS OF TOTAL LAPAROSCOPIC HYSTERECTOMIES USING KOH COLPOTOMIZER SYSTEM**

Anwar S, Chang T

Hysterectomy is the most commonly performed gynaecological surgical procedure. Total Laparoscopic hysterectomy (TLH) is a procedure where the whole procedure is performed laparoscopically including closure of the vaginal vault. There is concern of increased ureteric injury with use of the laparoscopic technique¹, in particular with TLH, because of close proximity of the uterine vessels to the ureters. The use of KOH Colpotomizer System during TLH provides delineation of the vaginal fornices and presents the uterine vessels whilst increasing the distance between the vessels and the ureters. This study is an audit of all TLHs performed by a single surgeon, in particular assessing the incidence of ureteric injury.

We did a retrospective analysis of all women who underwent total laparoscopic hysterectomies from 2001 to 2010 where KOH Colpotomizer System was used. Patients deemed not suitable for vaginal hysterectomy with benign conditions including large fibroids and severe endometriosis were included. Operative time, bladder and ureteric injuries, bleeding, infection and hospital stay are few of the parameters that are analysed.

This presentation will show the findings of this audit and in particular draw conclusions about the use of the KOH cups in reducing the risk of ureteric injuries.

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AUTHOR AFFILIATION: S. Anwar, T. Chang; Campbelltown Hospital, Campbelltown, NSW, Australia.

Session A / 1520-1530

SINGLE PORT TOTAL LAPAROSCOPIC HYSTERECTOMY MADE EASY

Siow A

Since the first laparoscopic hysterectomy in the 1980s, many gynaecologists have strived to learn the technique to benefit their patients with a kinder mode of hysterectomy. Many variations of total laparoscopic hysterectomy (TLH) have been described with the latest approach of Single Port or Laparo-Endoscopic Single Site Surgery (LESS) being the most exciting. At KK Women's & Children's Hospital, Singapore, we started LESS TLH in Sept 2009 and have formulated our steps to simplify the procedure. These consistently reproducible surgical steps together with multifunctional surgical instruments have enabled us to successfully perform LESS TLH efficaciously in appropriately selected patients. We have not needed to revert to conventional laparoscopic hysterectomy or encountered any intra-operative complications thus far in our experience of over 30 consecutive cases.

We present our method of LESS TLH with emphasis on the salient features of each surgical step to make the procedure uncomplicated, efficient and fulfilling.

AUTHOR AFFILIATION: A Siow; KK Women's & Children's Hospital, Singapore.

FREE COMMUNICATIONS

SESSION B

THURSDAY 24 MARCH

Session B / 1400-1410

CORNUAL HAEMATOMA FOLLOWING MICROWAVE ENDOMETRIAL ABLATION: A CASE REPORT AND REVIEW OF LITERATURE

Ghosh B, Chang T

INTRODUCTION: Post-ablation tubal sterilisation syndrome (PATSS) is a well established complication of older generation global endometrial ablative procedures. It was first described by Townsend et al in 1993, and occurs in up to 10% of cases^{1,2}. Symptomatic cornual haematometra (CH), without a prior history of tubal ligation, is a lesser known complication, reported in 4% of cases of hysteroscopic endometrial ablation² and <3% following newer ablative methods³. Hysteroscopic drainage or laparoscopic resection in symptomatic cases provides temporary relief. However, there is recurrence of symptoms in most cases, and hysterectomy with proximal salpingectomy remains the definitive treatment².

CASE REPORT: We report a 51-year old parous lady, who presented with non cyclical lower abdominal pain six years after microwave endometrial ablation (MEA) for abnormal uterine bleeding. She had been amenorrhic since the MEA and had no history of past tubal sterilisation. A pelvic ultrasound demonstrated presence of fluid in the endometrial cavity. Hysteroscopy demonstrated a scarred endometrial cavity; bilateral ostia were not visualised. Laparoscopy revealed a distended right cornu, extending into the proximal part of the right tube, suggestive of haematosalpinx. She underwent a successful laparoscopic right salpingectomy and cornual resection. Histopathology of the specimen confirmed haematosalpinx.

CONCLUSION: We present this case to highlight the importance of appropriate pre-operative counselling of patients undergoing endometrial ablative procedures regarding late complications. There exists a risk of ultimately needing a hysterectomy, in spite of successful treatment of menorrhagia with the endometrial ablation.

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AUTHOR AFFILIATION: B. Ghosh, T. Chang; Campbelltown Hospital, Campbelltown, NSW, Australia.

Session B / 1410-1420

DIAGNOSIS OF INTERSTITIAL CYSTITIS IN WOMEN WITH CHRONIC PELVIC PAIN - A PROSPECTIVE OBSERVATIONAL STUDY

Cheng C; Rosamilia A, Healey M

INTRODUCTION: Interstitial cystitis (IC) is a differential diagnosis in women with chronic pelvic pain (CPP), with a wide range in prevalence reported from 38-82%^{1,2}. The purpose of this study is to help define the prevalence of IC in women with CPP.

MATERIALS/METHOD: This prospective observational study was performed with ethical approval in a Pelvic Pain/Endometriosis Unit of a tertiary hospital in Melbourne. Female patients recruited were aged 18-50 with CPP and a laparoscopy scheduled.

Recruited subjects completed preoperative questionnaires including demographic data, visual analogue scales for pelvic pain symptoms, the Pelvic Pain and Urgency/Frequency (PUF) and O'Leary-Sant (OLS) Symptom and Problem Index scores. Preoperative urine culture was sent and concomitant standardised cystoscopy³ performed with the laparoscopy. The presence of glomerulations at cystoscopy was graded and if present, a bladder biopsy was performed.

For the purpose of this study, IC was diagnosed as pelvic pain with at least one urinary symptom (frequency ≥ 7 , nocturia ≥ 1 or any urgency) and the presence of glomerulations at cystoscopy (Grade 1 or more).

RESULTS: 150 subjects were analysed. Glomerulations were seen in 50/150 (33%) and 48/150 (32%) had IC. Overall 140/150 (93%) subjects had at least one urinary symptom as well.

In 32/50 (64%) cases with glomerulations a bladder biopsy was taken, with 14/32 (44%) reported as normal. The remaining 18/32 (56%) showed non specific cystitis or inflammation.

Bladder capacities were not significantly different between those with glomerulations and those without (688ml vs 726ml, $p=0.193$).

FREE COMMUNICATIONS

SESSION B

THURSDAY 24 MARCH

No significant difference was found with the PUF or OLS scores between those with IC and those without. No differences in demographics or symptomatology were found between these two groups.

Visually proven endometriosis was found in 90/150 (60%). Of those, 27/90 (30%) had glomerulations. There was no significant difference in glomerulation rates between subjects who had endometriosis and those who did not ($p=0.174$).

Comparing women with and without endometriosis, those with endometriosis were found to have lower gravidity (0.7 vs 1.4, $p=0.020$) and parity (0.3 vs 0.9, $p=0.002$). They were also more likely to have a history of laparoscopically diagnosed endometriosis (36% vs 15%, $p=0.003$).

CONCLUSION: In this study population of women with CPP in a Pelvic Pain/Endometriosis Unit, the prevalence of glomerulations was 33% and IC was 32%. This matches the reported rate of 38% by Clemons et al¹ but does not support the 82% rate reported by Paulson et al³.

History and questionnaires do not appear to correlate with a positive finding on cystoscopy. The merit of doing a cystoscopy as routine with laparoscopy when investigating these women is unclear.

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AUTHOR AFFILIATION: C. Cheng¹; A. Rosamilia², M. Healey¹;
1. Royal Women's Hospital Parkville Victoria, Australia 2. Monash Medical Centre, Clayton, Victoria, Australia.

Session B / 1420-1430

CASE SERIES: CHRONIC PELVIC PAIN AND OVERACTIVE PELVIC FLOOR MUSCLE DISORDER

Saunders N, Morrison S, Ang WC

The muscular layers of the pelvic floor perform an integral role in the support and function of multiple organ systems by contraction and relaxation. The inability to contract and relax the pelvic floor can lead to chronic pelvic pain, bowel and bladder symptoms and disordered sexual function. Overactive pelvic floor muscle disorder (OPFMD) as defined by the International Continence Society is 'pelvic floor muscles that do not relax or may contract when relaxation is functionally needed such as during micturition or defecation.' There is however, no existing international agreement on terminology of pelvic floor muscle dysfunction.¹

Chronic pelvic pain is a common presenting complaint in general gynaecology clinics. Primary myofascial pain is thought to be involved in 12-87% of cases and is one of the clinical syndromes found in patients with OPFMD². OPFMD is difficult to diagnose and treat. The nomenclature is inconsistent, the pain is often vague and poorly localised and there is no gold standard diagnostic test. Patients are often reviewed by multiple specialties and have undergone numerous investigations prior to diagnosis. Delayed diagnosis is common and can result in more resistant symptoms requiring longer periods of treatment.

This retrospective case series reviewed forty female patients presenting with chronic pelvic pain and overactive pelvic floor muscle disorder. These patients have received treatment with a Melbourne based physiotherapy group specialising in pelvic floor disorders from 1/1/2009 to 1/1/2011 and referred from a single gynaecological practice. The aim of the review was to help clarify OPFMD presenting as chronic pelvic pain and aid in the diagnosis of this condition. Results being presented also include patient outcomes following physiotherapy and duration of therapy.

The data includes the nature and duration of the presenting symptoms, time to diagnosis, demographics, co-morbidities and associated conditions. Time to diagnosis included a review of consultations and treatments recommended prior to the diagnosis of OPFMD and referral for physiotherapy. The duration and efficacy of the physiotherapy from patient reported symptom scales was recorded with the majority of patients showing a subjective improvement in symptoms and function. Objective assessment of resting muscle tone and the ability to contract and relax the pelvic floor muscles also improved during the treatment period.

FREE COMMUNICATIONS SESSION B THURSDAY 24 MARCH

A percentage of patients, however, reported ongoing symptoms despite an observed reduction in muscle tone.

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AUTHOR AFFILIATION: N. Saunder¹, S. Morrison², W. C. Ang¹;

1. Royal Women's Hospital, Parkville, Victoria, Australia 2. Women's and Men's Health Physiotherapy, Malvern, Victoria, Australia.

Session B / 1430-1440

RISK MANAGEMENT ISSUES SURROUNDING A CASE OF OVARIAN REMNANT SYNDROME: DIAGNOSTIC AND THERAPEUTIC DILEMMAS

Dunkley EJC, Patel PS, Ford R, Evans J, Lam A

INTRODUCTION: We present a case of residual ovary syndrome in a 39-year old woman with ongoing pain following a pelvic clearance for severe endometriosis.

The objectives of the presentation are to explore and discuss issues involving:

- Diagnostic and therapeutic dilemmas
- Dealing with a difficult patient
- The importance of a committed multi-disciplinary team
- The surgical approach illustrating intra-operative decision making using video footage

CASE SUMMARY: A 39-year old nulliparous woman with a history of severe endometriosis and infertility presented with pain and bowel symptoms seven years post a pelvic clearance. The patient had a long standing history of severe endometriosis requiring multiple attempts at surgical treatment including two laparotomies and four laparoscopies prior to the pelvic clearance.

The pain returned following the cessation of the oral contraceptive pill and did not resolve after it was restarted. This was accompanied by alternating severe diarrhoea and constipation. Due to the presence of bowel related symptoms a colorectal surgeon was consulted for an opinion. The patient could not contemplate the possibility of any injury or surgery to the bowel. This led to a reluctance by the colorectal surgeon to be involved in surgical management of the

patient. Eventually after a negative colonoscopy and multiple reviews by two senior gynaecologists and the colorectal surgeon a plan for laparoscopic surgical exploration was decided upon.

An ovarian remnant attached to bowel was discovered at the time of surgery. Histopathology confirmed the diagnosis of residual ovarian tissue with evidence of follicular activity.

AUTHOR AFFILIATION: E. J. C. Dunkley¹, P Patel¹, R Ford², J Evans³, A. Lam¹; 1. Centre for Advanced Reproductive Endosurgery (CARE) St Leonards, NSW, Australia 2. Royal North Shore Hospital St Leonards NSW Australia, North Shore Private Hospital St Leonards NSW, Australia Mater Hospital Crows Nest, NSW Australia 3. Northern Sydney Colorectal Clinic, St Leonards, NSW, Australia.

Session B / 1440-1450

PUBIC OSTEOMYELITIS FOLLOWING LAPAROSCOPIC PARAVAGINAL REPAIR

Rosen D, Sekel R

A 71-year old woman with a history of previous right hip replacement underwent Laparoscopic Mesh sacrohysteropexy and anterior paravaginal repair for Stage 3 pelvic prolapse. Two weeks postop she experienced a left sided pain commencing on the left side of the hemi-pelvis extending down the left thigh causing difficulty on ambulation. No sensory defect was noted however a mild muscular weakness left compared to right was noted. Neurological examination excluded obturator neuropathy and the pain was somewhat relieved by anti-inflammatories however continued to progress. Initial orthopaedic review diagnosed a 'stress' reaction based on the marrow oedema seen at MRI scan however with ongoing symptoms, a diagnosis of osteitis pubis was made. CT scan of the pelvis showed mild inflammatory changes consistent with osteitis pubis and a steroid injection into the symphysis relieved pain immediately for three days. Thereafter pain recurred and the classical waddling gait was noted.

Referral was then made to the orthopaedic surgeon who performed the original hip replacement who also agreed with the diagnosis of osteitis pubis, however a raised CRP/WCC, *Pseudomonas aeruginosa* on BC's and MSU and hot spots in the symphysis on Nuclear Imaging changed the diagnosis to one of Pubic osteomyelitis. The patient was admitted for ivi Timentin and Gentamicin on consultation with an infectious diseases specialist however the CRP continued to rise (max 327) and the patient returned to theatre for removal of the paravaginal sutures on the left and curettage of the symphysis pubis. This showed *pseudomonas*

FREE COMMUNICATIONS SESSION B THURSDAY 24 MARCH

growing in a culture of pus released from the symphysis however the suture material showed no growth. Postoperatively the patient made a slow but steady recovery. This is the first reported case of osteomyelitis following a laparoscopic retropubic procedure and recommendations regarding warning signs and management strategies will be discussed.

AUTHOR AFFILIATION: D. Rosen, R. Sekel OAM; Sydney Women's Endosurgery Centre, St George Private Hospital, Kogarah, NSW, Australia.

Session B / 1450-1500

LAPAROSCOPIC SUBPERITONEAL PELVIC ANATOMY: DEEPER AND DOWN

Reyftmann L, Aust T, Cario G, Rosen D, Chou D

Repeated attempts have been done to familiarise surgeons with the surgical anatomy that they need to fully apprehend to reach skill level 4 of the RANZCOG guidelines for performing advanced operative laparoscopy. Many textbooks of anatomy and surgical anatomy exist, some of them being authentic pieces of artwork, and it is noteworthy that most laparoscopy training workshops offer a cadaver session like our SWEC advanced laparoscopic workshop. It seems that most endoscopic workshops and courses teach specifically applied knowledge to laparoscopic gynaecological surgery like suturing, understanding an appropriate use of different energy sources, surgical plans and strategies for the great benefit of the attendants, nevertheless, most of the time thorough knowledge of pelvic anatomy is considered a prerequisite. In fact, anatomic instruction during preclinical years of medical school has been in decline recently. There is evidence that residents already lose a considerable portion of basic anatomic knowledge in the transition from student to clinician, and this deficit is even more dramatic in residents who start their training with a decreased understanding of anatomy. Most advanced educational programs apprehend anatomy in a classical way, as it was taught for open surgery¹. Not all courses can include a laparoscopic fresh cadaver dissection tutorial, even if this concept seems highly prized by the delegates². Unfortunately cadaver open anatomy and laparoscopic anatomy are different, and most trainees feel awkward when it is time to apply their theoretical knowledge to the context of a live surgery, especially when it comes to the dissection of subperitoneal spaces. We think that this state of mind should evolve and that specific pedagogical tools should be designed³. Indeed open and laparoscopic anatomies do differ: the angle of approach is completely different through the

telescope and palpation is impossible. However, we firmly believe that laparoscopy and its three key properties (magnification, pneumodissection, preventive haemostasis allowing clear vision of details) is a unique tool to relearn anatomy and probably to increase our knowledge of specific details that the naked eye would probably miss.

This presentation will focus on several specific aspects of laparoscopic pelvic anatomy useful for the operator seeking to reach level 4 and more such as delimitation of retro and subperitoneal spaces, landmarks of vessels and nerves, dissection of pelvic sidewall with a special emphasis on the pelvic neuro anatomy.

KEYWORDS: Laparoscopic Surgery/ Pelvic Anatomy/ Subperitoneal

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AUTHOR AFFILIATION: L. Reyftmann, T. Aust, G. Cario, D. Rosen, D. Chou; Sydney Womens Endosurgery Centre, St George Private Hospital, Kogarah, NSW, Australia.

Session B / 1500-1510

VALUE OF PREOPERATIVE ULTRASOUND EXAMINATION IN THE SELECTION OF WOMEN WITH ADNEXAL MASSES FOR LAPAROSCOPIC SURGERY

Reid S, Winder S, Hogg R, Condous G

OBJECTIVE: We aim to establish the benefit of pre-operative transvaginal scanning (TVS) in predicting the feasibility of advanced laparoscopic adnexal surgery.

METHODS AND DESIGN: This is an ongoing prospective study (July 2006 to September 2010). All women who attended the outpatient One-Stop Gynecology clinic with a clinical or ultrasound diagnosis of an adnexal cyst were offered a detailed TVS in order to assess the feasibility of advanced laparoscopic adnexal surgery.

FREE COMMUNICATIONS

SESSION B

THURSDAY 24 MARCH

The adnexal lesions were classified as benign or malignant according to the IOTA pattern recognition method. The size, echogenicity and papillary structures of the mass were noted. An initial ultrasound classification of the mass was made; all benign and borderline lesions were booked for a laparoscopic approach and all malignant lesions were referred to Gynaecological Oncology for staging laparotomy. Laparoscopic surgery was classified as successful if the mass was removed completely without resorting to laparotomy. If an ovarian mass was misclassified as benign on USS, but subsequently found to be borderline or cancer on histology, these women were deemed to have had unnecessary laparoscopic surgery.

RESULTS: 73 women were diagnosed with a total of 86 ovarian cysts (13 were bilateral ovarian cysts). Sixty-six (90.4%) women were selected for laparoscopy and seven (9.6%) were selected for laparotomy (one of these had a benign ovarian cyst). Two women who had benign ovarian cysts on TVS were found to have borderline on histopathology. On histological examination, 70 (81.4%) ovarian cysts were benign; 16 (18.6%) ovarian cysts were borderline/malignant ovarian cysts. The operation was successfully completed laparoscopically in 63/66 (95.5%) cases. The pre-operative TVS assessment predicted the successful outcome of advanced laparoscopic surgery with a sensitivity of 98.4%, specificity of 66.7%, PPV 95.5% and NPV 85.7%.

CONCLUSION: Although the numbers are very small, a detailed pre-operative TVS is essential in planning and predicting the feasibility of advanced laparoscopic surgery in women with adnexal lesions.

AUTHOR AFFILIATION: S. Reid¹, S. Winder¹, R Hogg², G. Condous¹; 1. Acute Gynaecology, Early Pregnancy and Advanced Endosurgery Unit, Nepean Hospital, Australia, 2. Gynaecological Oncology Department, Westmead Hospital, NSW, Australia.

Session B / 1510-1520

FERTILITY AND PATHOLOGICAL OUTCOMES FOLLOWING CONSERVATIVE TREATMENT OF COMPLEX ATYPICAL HYPERPLASIA

Brownfoot FC, McNally O, Ang WC

OBJECTIVE: Complex atypical hyperplasia (CAH) is a non invasive proliferation of endometrial epithelium and is a precursor for endometrial carcinoma which accounts for 97% of uterine cancers^{1,2}. In 23% of women with a diagnosis of CAH, endometrial carcinoma may be concurrent or CAH will progress¹. As a result the favoured treatment for CAH has been hysterectomy. A relative excess

of oestrogen to progesterone is a known risk factor and more recently progesterone has been used as a conservative treatment³. The objective of this study was to review the experience with conservative management of CAH with an emphasis on fertility and long term pathology outcomes

STUDY DESIGN: A retrospective cohort study spanning a 10-year period from 2000 to 2010 at The Royal Women's Hospital was conducted. The oncology and dysplasia database (GeMMA), the hospital health information and a histology database (Clara) systems were interrogated to identify patients with CAH. The treatment, investigations, follow up and outcomes of all patients diagnosed with CAH were reviewed.

RESULTS: 124 patients were diagnosed with CAH over this time frame. There were 59 premenopausal patients and 65 post menopausal patients. Hysterectomy was the primary treatment in 22 (37%) premenopausal group and in 49 (75%) of postmenopausal group. An endometrial cancer was found in five (23%) and 12(25%) of these groups respectively. 37 (63%) premenopausal women and 26 (25%) post menopausal women were treated conservatively. Conservative treatment varied considerably consisting of different concentrations of oral medroxyprogesterone acetate (provera) or the intrauterine progesterone levonorgestrel (mirena) or a combination. There was regression in histology of 30 (81%) premenopausal patients with this occurring 73% of the time in the first six months. No premenopausal patients managed conservatively progressed to endometrial cancer. There was regression in histology of only six (38%) of postmenopausal patients, all occurring within the first six months of treatment. Six (38%) postmenopausal patients progressed to endometrial cancer. Nine premenopausal women wanted to conceive immediately and post conservative treatment four (44%) of these women achieved successful pregnancies.

CONCLUSION: The incidence of endometrial cancer post diagnosis of CAH is 23% in premenopausal women and 25% for postmenopausal women. Conservative treatment with progesterone in premenopausal women leads to high levels of regression and this appears to occur primarily within the first six

FREE COMMUNICATIONS SESSION B THURSDAY 24 MARCH

months. Almost 50% may achieve pregnancy post conservative treatment of complex atypical hyperplasia.

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AUTHOR AFFILIATION: F. C. Brownfoot, O. McNally, W. C. Ang; Royal Women's Hospital, Parkville, Victoria, Australia.

Session B / 1520-1530

QUILL SRS VS V LOC – VIDEO COMPARISONS

Lee S, Soo S, Ang WC

A video presenting the use of two barbed sutures at laparoscopic myomectomy will be shown.

The initial experience and technique of both methods will be demonstrated. Each mode of suturing has particular nuances. The benefits of each suture type will be highlighted. Finally, a comparison of both sutures at laparoscopic myomectomy will be discussed with the aid of videos from multiple cases.

AUTHOR AFFILIATION: S. Lee, S. Soo, W. C. Ang; The Royal Women's Hospital, Parkville, Victoria, Australia.



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Session C / 1400-1410

SHORT-TERM OUTCOMES OF 123 CONSECUTIVE CASES OF ELEVATE® MESH REPAIR FOR PELVIC ORGAN PROLAPSE

Dunkley EJC, Patel PS, Lam A

INTRODUCTION: Elevate® mesh (American Medical Systems, Inc) was introduced in 2008. There is no published data with respect to outcomes of this mesh kit. However, encouraging six and twelve month results have been presented from the ongoing multicentre AMS sponsored trial for posterior Elevate®^{1,2} and retrospective case series analysis for anterior Elevate®³.

OBJECTIVE: A preliminary analysis of early outcomes of a newly established procedure.

SETTING: A tertiary referral service in Sydney, NSW.

DESIGN: A retrospective case series analysis

METHODOLOGY: From December 14th 2009 to January 24th 2011, 123 Elevate® procedures were performed on 81 patients (62 anterior Elevate® and 61 posterior Elevate®) by or under the supervision of the senior surgeon. Pre and post surgery POP Q assessment was performed on all patients. Follow-up visits are conducted at 6 weeks, one and five years, with unscheduled visits if any concerns. Anatomical failure was defined as \geq POP-Q stage 2. A prospective data base was maintained.

RESULTS: Patient demographics: mean age 60.1 (40-84); mean parity 2.83 (1-7); 87.6% post menopausal; mean BMI 26.9 (18.4-42.5). Pre-operative POPQ: stage II 16 (19.5%), stage III 57 (69.5%), stage IV 9 (11%).

Median follow-up: six weeks (range 1-10 months).

Nineteen patients (23.5%) had recurrent prolapse, the rest were primary repairs. Twenty one patients had a previous hysterectomy. The mean estimated blood loss was 129ml and average duration of surgery was 92 minutes. However, 51 (62.9%) had concomitant surgery.

There was one intra-operative complication of bladder perforation identified immediately by visualisation of urine leakage, confirmed on cystoscopy and repaired. There was one modified anterior elevate due to inability to reach the ischial spine on the right side from severe scarring. Four patients were readmitted: one for multiple pulmonary emboli, one with heavy vaginal bleeding requiring packing, one urinary retention and one with a fever.

Three patients were lost to follow-up and four patients had not reached follow-up. There was a 'cure' rate of 95.9%: 61 (82%) stage 0, 11 (14.8%) stage 1. There were three procedure failures (stage 2), all occurred in the anterior compartment. There were no cases of vaginal stenosis or early mesh erosion. Four patients experienced new onset stress incontinence.

CONCLUSION: Early results for Elevate® mesh repair appear encouraging. The procedures are associated with excellent early anatomical results and low morbidity. We are continuing ongoing follow-up of this patient series to determine one year then long term results.

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AUTHOR AFFILIATION: E. J. C. Dunkley, P. S. Patel, A. Lam; Centre for Advanced Reproductive Endosurgery (CARE), Sydney, NSW, Australia.

Session C / 1410-1420

ETHIBOND, SHOULD WE BOND?

Amir M, Rosamilia A, Tsaltas J

Ethibond is a permanent braided coated suture.

In Gynecology, the main use of Ethibond has been in pelvic floor surgery such as: sacrocolpopexy, Burch colposuspension, and vaginal repair such as sacrospinous colpopexy.

Ethibond related complications occur in between 3.7% to 44% in different series. The main complications consist of: erosion, infection, suture migration, wound disruption, fistulas and surgery failure.

FREE COMMUNICATIONS SESSION C THURSDAY 24 MARCH

In this presentation we show a summary of the largest series of Ethibond related complications.

We will show our experience – review of cases and videos, and summarise the current recommendations regarding suture use.

AUTHOR AFFILIATION: M. Amir, A. Rosamilia, J. Tsaltas; Monash Medical Centre, Clayton, Victoria, Australia.

Session C / 1420-1430

OPTIMAL FIXATION OF THE MESH TO THE SACRAL PROMONTORY AT LAPAROSCOPIC SACROCOLPOPEXY: CRITICAL POINTS

L. Reyftmann, T Aust, G Cario, D Rosen, D Chou

BACKGROUND: One critical technical step in laparoscopic sacrocolpopexy is the method of mesh fixation to the longitudinal prevertebral ligament. The laparoscopic anterior approach to the lumbosacral spine affords the ideal window to the disc for placement of the mesh and fortunately, even though vascular injuries represent the most feared complications of such an approach, they are very rare. However, other complications exist and could be related to the technique of fixation such as spondylodiscitis or accelerated disc degeneration.

METHODS: In this communication we will review the body of evidence available for the main fixation techniques, based on a literature search, a cadaver study and our team experience in order to provide useful recommendations.

1. The first issue will be safety, with a critical analysis of the two major techniques of fixation (tacking and suturing) with a comparison of their respective advantages and risks such as intervertebral disc degeneration, vascular injury, ergonomics and learning curve. For instance, what is the risk of stitching the underlying intervertebral disc when applying the suture or the staple to the ligament?¹
2. The second issue to be addressed will be the optimal location and orientation of suture placement in the anterior longitudinal ligament for strength. Is the position of the suture (horizontally or longitudinally) of any significance? Does the level of the placement influence the mechanical properties of the fixation?²
3. The third question will address the implications for the surgeon of the numerous anatomical variations of the sacral promontory region: variations of the lumbosacral transition (so called lumbarisation and sacralisation) and their consequences on

the vascular pattern. For instance, if anterior lumbar surgery is to be performed at the functional lumbosacral junction in the presence of transitional vertebrae (which represents about 10% of cases overall), it is vital that close attention be paid to the vascular anatomy³. We will present the results of a cadaver study showing the mean distances between the right common iliac artery and the left iliac vein, the average location of the median sacral vessels, and the distance between the inferior edge of the promontory and the bifurcation.

KEYWORDS: Laparoscopic Surgery / Sacrocolpopexy / Anatomy / Lumbosacral Transitional Vertebra / Intervertebral Disk

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AUTHOR AFFILIATION: L. Reyftmann, T. Aust, G. Cario, D. Rosen, D. Chou; Sydney Womens Endosurgery Centre, St George Private Hospital, Kogarah, NSW, Australia.

Session C / 1430-1440

BLADDER DYSFUNCTION FOLLOWING GYNECOLOGICAL LAPAROSCOPIC SURGERY FOR BENIGN PATHOLOGY

Won HR, Maley P, Chetty N, Chan K, Abbott J

INTRODUCTION: This prospective audit aims to estimate the incidence of and factors leading to bladder dysfunction after laparoscopic gynaecological surgery for benign pathology.

METHOD: Between October 20, 2009 and April 7, 2010 all patients undergoing elective laparoscopy for benign gynaecological disease at a tertiary level teaching hospital were prospectively audited for post-operative bladder function. Data were collected with respect to pre-operative baseline bladder function, demographic, intra and post-operative data and bladder function and time to discharge.

FREE COMMUNICATIONS

SESSION C

THURSDAY 24 MARCH

MEASUREMENTS AND MAIN RESULTS: 108 women having elective laparoscopic surgery for benign gynaecological pathology were included in the audit. Post operative bladder dysfunction was defined as a residual of >100mL after a void of >150mL on more than one occasion or a bladder volume >600mL with no urge to void. 19.6% (20 out of 102) of patients were found to have post operative bladder dysfunction. For women with bladder dysfunction versus no dysfunction there was no statistically significant difference in mean operative time, anatomical site of surgery, number of operative sites, type of pathology, duration of catheterisation, units of morphine or baseline bladder function. Women with dysfunction had a statistically significant greater length of stay from removal of catheter to discharge ($p=0.04$).

CONCLUSION: Post operative bladder dysfunction appears idiosyncratic, with no single factor predictive of this problem. Larger series may demonstrate specific risk factors for bladder dysfunction. Possibilities for the demonstrated rate of dysfunction include normal bladder behaviour, unmasking future bladder dysfunction, response to drugs, or neurological issues. The implications of post-operative bladder dysfunction may have consequences for health care resource utilisation and allocation, acute patient management, and possible long-term urinary function consequences and are worthy of further study.

KEY WORDS: Bladder dysfunction / urinary retention / complications of gynaecological laparoscopy / Post-operative urinary retention

AUTHOR AFFILIATION: H. R. Won, P. Maley, N. Chetty, K. Chan, J. Abbott; The Royal Hospital for Women and University of New South Wales, Sydney, Australia.

Session C / 1440-1450

PREGNANCY MANAGEMENT FOLLOWING LAPAROSCOPIC MESH SACROHYSTEROPEXY IN A NULLIPARA

Chou D, Gardner K, Aust T, Cario G, Rosen D, Reyftman L, Miller T

Uterovaginal prolapse is a common problem typically affecting parous women. Treatment has traditionally involved vaginal hysterectomy with concomitant vault suspension. Young patients with uterovaginal prolapse may however request preservation of their fertility. Until recently, the options faced by such patients have included unilateral sacrospinous fixation or the use a ring pessary for temporary relief until childbearing has been completed. Surgical advancements have created various abdominal and endoscopic

uterine suspension options, but the literature on the implications for postoperative pregnancy in these women is limited.

This case documents the history of a 30-year old lady who underwent a laparoscopic sacrohysteropexy to repair a major uterovaginal prolapse which resulted from an eating disorder involving a combination of bulimia and laxative abuse. This nulliparous lady was desirous of future pregnancy, and at the age of 35 she spontaneously conceived. Although the pregnancy was complicated by preeclampsia, the mesh repair had no impact on her pregnancy and a healthy female infant was delivered by Caesarean section at 37 weeks of gestation.

The multimedia presentation of this case will include preoperative dynamic magnetic resonance images, laparoscopic footage of the sacrohysteropexy, ultrasound images of the mesh during pregnancy and video footage from the Caesarean section.

This case becomes part of a small group of successful pregnancy outcomes reported following conservative laparoscopic surgery for uterine prolapse. Previously documented techniques include laparoscopic suture hysteropexy¹ involving plication of the uterosacral ligaments and reattachment to the cervix. Busby et al.² described one successful pregnancy after a laparoscopic mesh sacrohysteropexy that involved only posterior compartment support. Our case in contrast, involved more extensive repair, including both anterior and posterior compartment support, and thereby theoretically posed additional complications for Caesarean delivery during subsequent pregnancy. There is a single publication³ documenting two term pregnancies culminating in Caesarean section following a procedure similar to ours, however our case is the first for a nulliparous individual.

This case supports the growing evidence that conservative approaches to uterovaginal prolapse in young women can not only restore normal anatomy and sexual function, but can preserve fertility and allow a successful pregnancy with birth by Caesarean section.

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FREE COMMUNICATIONS SESSION C THURSDAY 24 MARCH

AUTHOR AFFILIATION: D. Chou¹, K. Gardner², T. Aust¹, G. Cario¹, D. Rosen¹, L. Reyftman¹, T. Miller²; 1. Sydney Womens Endosurgery Centre, St George Private Hospital, Kogarah, NSW, Australia. 2. St George Private Hospital, Kogarah, NSW, Australia.

Session C / 1450-1500 **LAPAROSCOPIC EXCISION OF SACROCOLPOPEXY MESH FROM THE LEVATOR ANI**

Aust T, Reyftmann L, Cario G, Rosen D, Chou D

A 62-year old woman underwent a laparoscopic mesh sacrocolpopexy for severe vault prolapse. A tacker device was used to anchor the mesh to both levator ani and to the sacral promontory.

Three months post operatively she complained of pain in the pelvic floor and buttock region, worse on sitting. This did not improve with conservative measures and the pain seemed to localise to the area of tacking of the mesh to the right levator ani.

A laparoscopic excision of the right arm of the mesh along with three tacks was undertaken eight months following the initial procedure. Dissection of the mesh was difficult with constant checking for the position of the rectum to prevent damage. The procedure led to a cessation of symptoms, without a recurrence of the prolapse.

AUTHOR AFFILIATION: T. Aust, L. Reyftmann, G. Cario, D. Rosen, D. Chou; Sydney Womens Endosurgery Centre, St George Private Hospital, Kogarah NSW, Australia.

Session C / 1500-1510 **FERTILITY PRESERVATION IN THE SETTING OF SEVERE UTEROVAGINAL PROLAPSE: A SURGICAL CHALLENGE**

Smith CJ, Patel P, Dunkley E, Lam A

INTRODUCTION: The most effective surgical approach for the management of uterovaginal prolapse in those patients desiring uterine conservation remains controversial. Uterine suspension procedures can be performed vaginally, abdominally, or laparoscopically, however there remains a paucity of literature addressing their effectiveness. We present a novel laparoscopic approach to the surgical management of severe uterovaginal prolapse in a women desiring future fertility.

CASE REPORT: A 35-year old multiparous women was referred for immediate management of an incarcerated procidentia. She reported a five month history of progressively worsening prolapse symptoms and associated right renal colic. Despite significant discomfort, the patient desired uterine preservation to allow for future pregnancies.

Urgent examination under anaesthesia and reduction of uterovaginal prolapse was performed. Intra-operative findings included a severely oedematous and ulcerated cervix protruding 6cm past the introitus. The prolapse was manually reduced and vaginal packs were inserted.

One week later, laparoscopic sacrohysterocolpopexy using synthetic mesh was performed. The procedure involved reflecting the bladder and rectum off the anterior and posterior vaginal fornices respectively. The sacral promontory was exposed using right para-rectal and presacral peritoneal incisions. Gynaemesh-Y was sutured to the anterior cervix, posterior vaginal walls, and uterosacral ligaments with PDS. The mesh was anchored to the sacral promontory and re-peritonealisation was performed.

Post-operative recovery was excellent and clinical examination confirmed complete restoration of apical support. The patient was asked to delay falling pregnant for at least six months to allow consolidation of the repair. Future elective caesarean section was advised to reduce the risk of recurrent prolapse.

DISCUSSION: The laparoscopic pelvic reconstruction techniques described for women desiring uterine preservation involve uterine suspension to the round ligaments, uterosacral ligaments, or sacral promontory. These laparoscopic approaches promote better delineation of pelvic anatomy, superior identification of site-specific pelvic floor defects, improved haemostasis, and quicker post-operative recovery.

Laparoscopic hysterocolpopexy has been demonstrated in three small case series to be an effective and well-tolerated uterine suspension technique^{1 2 3}. Much of the available data appears to be based on women not pursuing future fertility and therefore the effect of pregnancy and delivery on this type of reconstruction procedure is essentially unknown. However, it is our belief that laparoscopic hysterocolpopexy provides an excellent surgical option for the restoration and reinforcement of normal uterine supports in women of reproductive age.

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FREE COMMUNICATIONS

SESSION C

THURSDAY 24 MARCH

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AUTHOR AFFILIATION: C. J. Smith¹, P. Patel, E. Dunkley, A. Lam²;
1. Royal North Shore Hospital, St Leonards, NSW, Australia 2. Centre for Advanced Reproductive Endosurgery, Sydney, NSW, Australia.

Session C / 1510-1520

LAPAROSCOPIC SACROHYSTEROPEXY: A 6-YEAR EXPERIENCE IN UTERUS-SPARING PROLAPSE REPAIR AT CARE, SYDNEY

Patel PS, Dunkley EJC, Lam A

OBJECTIVE: To evaluate the outcomes of the largest case series of laparoscopic mesh sacrohysteropexy (LSHP) for Level I prolapse in patients desiring uterine preservation.

METHODS: A retrospective analysis was conducted on all patients who underwent LSHP by a single surgeon at a tertiary referral centre. Cure was evaluated subjectively based on patients' recorded answers to preset questions regarding bowel, bladder and sexual function, and objectively by pelvic exam findings recorded at pre- and post-operative visits using the pelvic organ prolapse quantification (POP-Q) scale. Postoperative follow-up included routine visits at 1- and 12-months, as well as any unscheduled visits.

RESULTS: Sixty eight patients, at a mean age of 52.9 years, underwent LSHP between November 2004 and December 2010. Eighty two percent had POP-Q Stage ≥ 3 , and nearly a quarter had had ≥ 1 previous prolapse repair.

In addition to LSHP, a total of 166 other procedures were performed in 96% of patients: 55 (81%) underwent 20 Level III, and 50 anterior- and 34 posterior-Level II repairs. The average overall operative time and estimated blood loss were 110min and 100cc respectively. There were no major intra- or post-operative complications.

Only one patient was lost to follow-up; the remaining 67 patients were followed for an average of 8 months (range 1-64). The objective cure rate of LSHP, defined as an apical POP-Q stage of ≤ 1 , was 97%. The procedural failures consisted of one patient with cervical elongation resulting in Stage 3 cervical prolapse at

11 months, who subsequently underwent laparoscopic hysterectomy and colposacropexy to the intact mesh from the LSHP, and a second patient with asymptomatic Stage 2 recurrence at eight months. All nine patients who previously had failed Level I repair had successful outcome after their LSHP. Thirty out of the 34 (88%) Level II \geq Stage 2 defects that did not undergo concurrent site-specific repairs were also cured.

Subjectively, cure was noted in 85% of patients with sexual symptoms, 76% of those with bladder symptoms and 68% of those with bowel symptoms. Five patients developed occult stress incontinence, but none experienced de novo dyspareunia. Two patients eventually needed a hysterectomy, one for recurrent uterine prolapse due to cervical elongation, and the other for dysmenorrhea and menorrhagia. One case of mesh erosion occurred in a patient who had had a concomitant anterior repair with mesh.

CONCLUSIONS: LSHP is an effective option for uterine prolapse, and should be offered to women desiring uterine preservation.

AUTHOR AFFILIATION: P. S. Patel, E. J. C. Dunkley, A. Lam; Centre for Advanced Reproductive Endosurgery (CARE), St Leonards, NSW, Australia.

Session C / 1520-1530

PROPHYLACTIC UTEROSACRAL LIGAMENT VAULT SUSPENSION FOR POSTHYSTERECTOMY APICAL SUPPORT (THE PULL APX STUDY) – AGES RESEARCH GRANT PRESENTATION

Chou D, Reyftmann L, Aust T, Rosen D, Cario G

BACKGROUND: The incidence of posthysterectomy vault prolapse has been estimated to be between 1.8%, when hysterectomy is performed for benign diseases excluding prolapse, and 11.6%, when hysterectomy is performed for genital prolapse. Loss of pelvic floor support can occur after abdominal or vaginal hysterectomy in as many as 2-45% of patients due to failure to resuspend the vaginal cuff to the uterosacral ligaments resulting in vaginal vault prolapse, however, there is a paucity of data relating to the incidence of vaginal vault prolapse in those women who have had total laparoscopic hysterectomy (TLH). Uterosacral ligament suspension (USLS) gained popularity in the latter half of the 20th century. In 1957, McCall described passing a suture from one side of the vaginal cuff and uterosacral ligament through the peritoneum to the other side, effectively closing the cul-de-sac¹. More recent modifications have led to the development of laparoscopic USLS.

FREE COMMUNICATIONS SESSION C THURSDAY 24 MARCH

Seman et al² reported 100% objective cure rate in 47 patients after eight months of follow-up, while Maher et al³ reported that 16% of the 43 patients in their study underwent further prolapse surgery after a mean of 12 months.

Our trial has been designed to evaluate the ability of this USLS technique to prevent posthysterectomy vaginal vault prolapse in women who undergo TLH for benign indications other than prolapse. It has been awarded an AGES Research Grant in 2009.

STUDY PLAN: A randomised controlled, single-blinded, multi-centre trial with a minimum two years patient evaluation period to evaluate the efficacy of prophylactic laparoscopic USLS in women undergoing TLH for benign conditions, excluding prolapse, is proposed. A cohort of a minimum of 200 patients will be enrolled into the study, with randomisation to one of two groups; Group 1 will undergo TLH +/- bilateral salpingo-oophorectomy (BSO) with USLS and Group 2 will undergo TLH +/- BSO without USLS. Then by means of objective measurement of pelvic floor topography via pelvic organ prolapse quantification [POP-Q], the prophylactic efficacy of this step in avoiding future pelvic organ prolapse will be determined. The functional subjective parameters will be assessed by means of validated scales: the Pelvic Floor Distress Inventory Short Form 20 (PFDI-SF20) and the Pelvic Organ Prolapse/Urinary Incontinence Sexual Questionnaire Short Form 12 (PISQ-12). Our preliminary results will be presented at the AGES XXI annual scientific meeting.

KEY WORDS: Laparoscopic Surgery / Pelvic Floor Disorder / Uterosacral Ligament Suspension / Prevention / Total Laparoscopic Hysterectomy

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AUTHOR AFFILIATION: D. Chou, L. Reyftmann, A. Liew, T. Aust, G. Cario, D. Rosen; Sydney Womens Endosurgery Centre, St George Private Hospital, Kogarah, NSW, Australia.

FUTURE AGES MEETINGS



AGES PELVIC FLOOR SYMPOSIUM & WORKSHOP XII

Obstetric Trauma to Pelvic Floor Repair – Surgical Essentials

Adelaide Convention Centre
Adelaide, South Australia

3 & 4 June 2011

AGES PRE- & POST- WORKSHOPS
2 June 2011
5 June 2011



AGES FOCUS MEETING 2011

Gynaecological Complexities and Conundrums

Pan Pacific Perth
Perth, Western Australia

14 & 15 October 2011

FREE COMMUNICATIONS

SESSION D

FRIDAY 25 MARCH

Session D / 1400-1410

CAN WE AVOID LAPAROSCOPY IN MOST ECTOPIC PREGNANCIES? THE EXPERIENCE OF OUR EARLY PREGNANCY UNIT

Winder S, Reid S, Pixton S, Condous G

INTRODUCTION: We aimed to review the experience of our Early Pregnancy Unit (EPU) in the diagnosis and treatment of tubal EPs, and to assess the rate of conservative and surgical treatments

METHODS: A review of all women who presented to the EPU at Nepean Hospital, Sydney between Nov 2006 and Dec 2010, with a TVS diagnosis of tubal EP. EPs are managed in accordance to a strict protocol which includes a full evaluation of clinical, sonographic and biochemical (hCG) data.

Laparoscopic salpingectomy only if: -clinical presentation or TVS findings suggests rupture -non-compliance or failure of conservative treatment (MTX or expectant) All other women the pre-treatment hCG ratio (defined as hCG at 48hrs/hCG at 0hr) is determined:

if > 1.0 (evolving EP) \rightarrow MTX single-dose i.m; if < 1.0 (failing EP) \rightarrow expectant management (weekly serum hCG).

SUCCESS : uneventful decline of the hCG to pre-pregnancy levels with the primary intervention

RESULTS:

- 143 women with tubal EP
- Median age was 30 yrs (IQR 25-35)
- Median gestational age was 47 days (IQR 39-53)
- Median serum hCG level at presentation was 719 IU/L (IQR 211-2096)
- Prevalence of ectopic in our unit: 6.2%

In total, the success rate of conservative treatment (expectant + MTX management) was 49 %

CONCLUSIONS: Today most EPs can and should be managed non-surgically. An early diagnosis, together with a strict protocol incorporating a full clinical, sonographical and biochemical evaluation allow the avoidance of laparoscopy in most cases, and can optimise success rates of MTX and expectant management.

AUTHOR AFFILIATION: S. Winder, S. Reid, S. Pixton, G. Condous; Acute Gynaecology, Early Pregnancy And Advanced Endosurgical Unit, Nepean Hospital, Penrith, NSW, Australia.

Session D / 1410-1420

ROBOTIC GYNAECOLOGICAL SURGERY AT EPWORTH EASTERN HOSPITAL, MELBOURNE

Manolitsas T

Robotic gynaecologic surgery has been undertaken at the Epworth Eastern Hospital since December 2007. In total, 72 robotic gynaecological surgical procedures have been undertaken at the Epworth Eastern Hospital. From Dec 2007 to May 2010 a total of 54 robotic cases have been undertaken by the author. A further 18 cases have been performed by a second gynaecologist (Dr Ken Leong), comprising 16 robotic hysterectomies and 2 robotic myomectomies.

The authors personal series of cases will be presented. The indications for surgery include: endometrial cancer 34 cases, other cancers four cases, fibroids six cases, benign ovarian cysts/ adhesions three cases, persistent PMB two cases and one case each for benign polyps, endometrial hyperplasia, menorrhagia, and familial cancer syndrome. The most common procedure was Total Robotic Hysterectomy & BSO (TRH BSO):24 cases, followed by TRH BSO and pelvic lymph node dissection (TRH BSO PLND): 17 cases and then TRH: six cases. Other procedures include BSO: two cases and one case each of BSO & PLND, and Ureterolysis & PLND. Two cases were converted to laparotomy. Data will be presented detailing these cases.

The DaVinci robot is an outstanding surgical tool. Its incorporation into more widespread use by gynaecologists and gynaecological oncologists has been hampered by two main factors. Small numbers of robots in Australia, limits the access to those existing facilities and results in restrictions in the number of surgeons (of all surgical specialties) who can be granted regular operating sessions. Secondly, the robotic technology does not come cheap and so various solutions have been sought to overcome this challenge and make robotic surgery financially sustainable for the hospital, surgeon and patient.

The majority of prostatectomies in the USA are now performed robotically. Recently gynaecology has overtaken urology surgery in the USA in terms of numbers of robotic cases, with more gynaecological robotic procedures being performed than urological robotic procedures. Australia has not yet followed this pattern. So far only three gynaecologists in Australia have incorporated robotic surgery into their routine practise. Two of these are at Epworth Eastern, which has one of the most heavily utilised DaVinci robots in the world.

AUTHOR AFFILIATION: T. Manolitsas; Monash Medical Centre and Box Hill Hospital, Victoria, Australia.

FREE COMMUNICATIONS SESSION D FRIDAY 25 MARCH

Session D / 1420-1430

INSTANT RECORDING AND STORAGE IN LAPAROSCOPIC SURGERY: A LEARNING RESOURCE FOR THE TRAINEE AND TRAINER

Georgiou C

Despite the continual advancements of digital technology there have been few developments with respect to recording media used in laparoscopic surgery. Furthermore, the final video format is usually in a compressed form and small, inexpensive, and portable devices can now perform the process by which this data is compressed.

Teaching the choreography involved in laparoscopic surgery is a challenging process. A systematic approach to laparoscopic surgery is likely to ensure that the laparoscopy is complete and potential iatrogenic complications are noted at the time of surgery. Although there are a variety of 'Laparoscopic Trainers' and Courses available, the Registrar still has to transfer their skills to the intraoperative situation and "practice" in order to establish their own routine.

The reduction in Registrar training hours and the increasing use of 12hr overnight shifts, makes individual training difficult. This results in a relatively small number of Registrars being proficient in laparoscopic skills, unless they are in central (major teaching) hospital. Even then, they are usually competing with Senior Registrars/Fellows for their operating 'opportunities'.

Registrars frequently request more gynaecological surgery, particularly laparoscopic. However, there is an inherent problem with allowing them to 'have a go' without appropriate supervision, even for the simplest of procedures. Knowledge of the Registrars skill level is difficult to assess without seeing them operate. The above-mentioned working pattern makes such an assessment difficult as they are usually assigned to a group of Consultants. They may therefore, be operating with an individual Consultant every three or four weeks. Furthermore, not all lists contain laparoscopic procedures and competency is difficult to assess on a single case. Finally, the pressure to complete the operating lists within the allocated theatre period may further reduce the time the Registrar has to demonstrate their 'finesse'.

One solution to assessing, tracking and reviewing their operative skill is to encourage the Registrar to record their own progress, literally. These cases may then be reviewed with their respective Consultant out of theatre time, with the view of improving their operative skills through constructive criticism and suggestions. It would also serve to facilitate Registrar evaluation as they move from Hospital to Hospital.

This paper describes facilities currently being developed at the Wollongong Hospital by which rotating Registrars can record their progress in their laparoscopic training and thereby help themselves in improving their laparoscopic choreography.

AUTHOR AFFILIATION: C. Georgiou; Wollongong Hospital / University of Wollongong (Illawarra Health and Medical Research Institute), NSW, Australia.

Session D / 1430-1440

LAPAROSCOPIC HYSTERECTOMY FOR THE MANAGEMENT OF ENDOMETRIAL CANCER IN THE SUPER-MORBIDLY OBESE

Reid K, Hobson S, Manolitsas T

Endometrial cancer is the most commonly diagnosed malignancy of the female genital tract in Australia. Obesity, a well known risk factor for endometrial cancer, is increasing in prevalence on a global scale. Patients with endometrial cancer and BMI measurements above 40 (classified as morbidly obese by WHO) are not uncommonly seen, and a cohort of patients with BMI greater than or equal to 50, so-called super-morbidly obese, provide particular management difficulties to the gynaecology oncologist. Standard treatment of endometrial cancer is by hysterectomy and bilateral salpingo-oophorectomy, with sampling of pelvic and para-aortic lymph nodes as deemed necessary for staging. This procedure has typically been performed by laparotomy, but there is growing interest in minimally invasive techniques, with an aim to improve visibility and access to the pelvis, and minimisation of post operative complications such as wound breakdown, a particular concern in the morbidly obese patient. At Monash Medical Centre, five women with BMI greater than or equal to 50 underwent total laparoscopic hysterectomy for management of endometrial cancer between 2006 and 2010. The patient's weights ranged between 127 and 203kg, with BMI ranging from 50 to 71.9. The length of procedure ranged between 145 to 215 minutes, and length of stay between two-four days.

There were no significant surgical complications intra operatively or post operatively, and minimal blood loss was recorded. To enable us to achieve outcomes comparable to those seen in slimmer patients, we applied a number of techniques to improve surgical access and ergonomics. Our experience suggests laparoscopic management of endometrial cancer in the super morbidly obese is safely achievable, with acceptable complication rates. Methods used relating to the techniques implemented will be described.

FREE COMMUNICATIONS

SESSION D

FRIDAY 25 MARCH

AUTHOR AFFILIATION: K Reid¹, S. Hobson², T Manolitsas²; 1. Royal Womens Hospital Herston Queensland, Australia, 2. Southern Health Monash Medical Centre, Clayton, Victoria, Australia.

Session D / 1440-1450

HASSON VERSUS VERESS NEEDLE LAPAROSCOPIC ENTRY: A COMPARISON OF TIME TAKEN TO ESTABLISH A PNEUMOPERITONEUM

Fernandes H, Jobling T, McNeilage J, Percy D, Reid K, Manolitsas T

BACKGROUND: Laparoscopic surgery is an integral part of gynaecological practice. Peritoneal access is primarily by an open or closed method, of which Hasson and Veress needle are respectively the most commonly used techniques.

Many gynaecologists justify the use of Veress needle with the anecdotal evidence that it gains faster abdominal access than Hasson^{1,2}, however there is little research on laparoscopic entry time.

METHODS: 79 women underwent laparoscopic procedures by the consultants and fellow of the Department of Gynae-Oncology at Monash Medical Centre. The most senior surgeon of each case decided on a Veress or Hasson entry based on their clinical judgment. A stop watch was used to measure time taken to reach three milestones including umbilical skin incision (Time 1), confirmed intraperitoneal placement of the telescope with operating pressure of 15mm Hg (Time 2) and cutting of the final suture (Time 3). A meta-analysis of all published papers that had timed Veress or Hasson entry was also conducted.

RESULTS: There were 31 women in the Veress group and 48 in the Hasson entry group with equal demographics. Overall, Veress needle was 78 seconds (172.2 seconds vs. 250.2 seconds) faster than Hasson to enter and achieve pneumoperitoneum ($P < 0.001$). Veress entry was faster regardless of procedure complexity however this was not significant in minor cases.

The percentage of operating time spent on entering the abdomen and establishing pneumoperitoneum was smallest when the Hasson entry was used (7.37% vs. 10.0%). This difference decreased with increasing surgical complexity and was never statistically significant.

DISCUSSION/CONCLUSION: Most gynaecologists in Australasia favour using the Veress needle for entry. Our study shows Hasson entry to be slightly slower than the Veress needle at achieving pneumoperitoneum, however this difference is in contrast to our

meta-analysis which demonstrates that Veress entry is slower than Hasson. Despite the difference in entry time, there was no significance as a proportion of the total operating time. We propose that Hasson entry is an under-utilised laparoscopic entry technique amongst Australian gynaecologists and when making a decision regarding entry technique, we do not believe that time taken should be a factor.

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AUTHOR AFFILIATION: H. Fernandes, T. Jobling, J. McNeilage, D. Percy, K. Reid, T. Manolitsas; Department of Obstetrics and Gynaecology, Monash Medical Centre, Victoria, Australia.

Session D / 1450-1500

THE ROLE OF TRANSVERSUS ABDOMINIS PLANE BLOCK IN PATIENTS UNDERGOING TOTAL LAPAROSCOPIC HYSTERECTOMY: A RETROSPECTIVE REVIEW

Pather S, Loadsman J, Gopalan D, Rao A, Philp S, Carter J

Total laparoscopic hysterectomy (TLH) is preferred to open hysterectomy as it results in shorter length of stay, lower complication rates, less pain and improved quality of life¹. The transversus abdominis plane (TAP) local anaesthetic block has shown significant benefit for patients undergoing open abdominal surgery and has been recently used in general surgical laparoscopic procedures². There are currently no data on its use in patients undergoing laparoscopic gynaecologic surgery. We present a series on its use in a patients undergoing TLH at a major tertiary gynaecologic centre.

Successive patients undergoing TLH were included in the review and it was the practice of one anaesthetist to place a TAP block (subcostal and posterior) in all patients undergoing TLH using a previously described technique³. All patients had local anaesthetic infiltration at the site of port placement and in addition received multimodal analgesia (regular paracetamol, non-steroidal analgesics and opioids on demand). Ethical approval was obtained for publication of the data.

FREE COMMUNICATIONS

SESSION D

FRIDAY 25 MARCH

The records of 64 patients initially scheduled for TLH were reviewed. Three patients subsequently underwent a laparotomy; one of these patients had a TAP block and these three patients were excluded from further analysis. Twenty of those remaining had a TAP block and 41 were managed without any blocks. The two groups were comparable with respect to age, body mass index, American Society of Anesthesiologists physical status, type of operation, cancer status, and surgical time. Patients with a TAP block had a significantly shorter length of stay (1.45 vs 2.20 days, $p=0.014$), lower total perioperative and postoperative opioid use (12 vs 19mg in morphine equivalents, $p=0.014$; 11 vs 21mg, $p=0.05$) when compared to patients without a TAP block. TAP block did not result in prolonged anaesthetic time (37 vs 42 min, $p=0.209$). Twelve patients in the control group and none in the study group used a PCA for postoperative pain control ($p=0.005$). When patients who received a PCA were excluded, those patients with a TAP block were significantly less likely to need any parenteral postoperative opioid breakthrough analgesia 2/20 (10%) vs 12/29 (41%), ($p=0.017$). 6/20 (30%) patients who received a TAP block did not use any postoperative opioids at all as compared to 5/29 (17%) who did not receive a TAP block, however this difference was not statistically significant ($p=0.240$). Length of stay was significantly associated with patient age, TAP block and duration of surgery on univariate analysis ($p=0.005$, $p=0.035$ and $p=0.025$ respectively however on multiple regression analysis only patient age and a TAP block were associated with a shorter length of stay (<0.001 and 0.015 respectively). Total opioid use was only significantly correlated with the presence or absence of a TAP block ($p=0.005$). There were no cases of procedural haematoma, visceral injury or local anaesthetic toxicity associated with the TAP block.

This series demonstrates that a TAP block in patients undergoing TLH results in significantly shorter length of stay and lower opioid use. The retrospective nature of this trial and the absence of data on pain scores and nausea and vomiting is best addressed by a large prospective study looking at the role of this technique in patients undergoing TLH.

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AUTHOR AFFILIATION: S. Pather^{1,4}, J. Loadsman^{2,4}, D. Gopalan³, A. Rao¹, S. Philp^{1,4}, J. Carter^{1,4}; 1. The Sydney Gynaecologic Oncology Group, Sydney Cancer Centre, Royal Prince Alfred Hospital, Sydney, NSW, Australia. 2. Department of Anaesthesia, Royal Prince Alfred Hospital and University of Sydney, Sydney, NSW, Australia. 3. Department of Anaesthetics, Albert Luthuli Hospital and Nelson Mandela School of Medicine, Durban, South Africa. 4. The University of Sydney, Sydney, NSW, Australia

Session D / 1500-1510

TRANS-OMENTAL LAPAROSCOPIC SURGERY

Georgiou C

The decision to perform a laparoscopic procedure usually involves a series of risk assessment processes to ensure that the right patient has the appropriate surgery. The general and specific risks of the procedure are discussed with the patient including the risk of laparotomy due to complications of port entry, surgery, or the inability to perform the proposed procedure safely.

In general a patient's BMI, their previous surgical history and recent imaging are considered good indicators for such assessments.

Various approaches have been described to enter the peritoneal cavity. These include the direct entry, Veress, Hasson, and the Kadar technique. The specific choice may be selected dependent on previous surgical history, BMI as well as the surgeon's preference. However, once entry is accomplished and a pneumoperitoneum is established, the placement of port sites is recommended under direct visualisation using anatomical landmarks and trans-illumination to avoid major abdominal vessels and subsequently, structures within the peritoneal cavity.

A case of a 44yr old lady, BMI 27, with a six-month history of pelvic pain and multiple bilateral ovarian cysts is presented. Her past surgical history included three previous caesarean sections, a laparoscopic tubal ligation and a total abdominal hysterectomy for menorrhagia following failed endometrial ablation. Transvaginal and colour Doppler ultrasound demonstrated two solid cysts in the right ovary measuring 1.3 and 2.4cm respectively. Likewise, the left ovary also contained two cysts measuring 3.5cm x 2.3cm x 2.5cm and

FREE COMMUNICATIONS

SESSION D

FRIDAY 25 MARCH

2.7cm x 1.4cm and 2.6cm respectively. All cystic structures were described as avascular and hyperechoic structures. No free pelvic fluid was seen. The appearances were described as 'not diagnostic, and on the left may represent contracted haemorrhage'. Tumour markers, including CA125, were within the normal range.

A laparoscopy was performed in view of the ongoing pain and the "solid" nature of the cysts. Despite the anticipated low risk of adhesions at the initial port entry site, the omentum completely covered the lower peritoneal cavity bilaterally.

A laparoscopic left salpingoophorectomy and right ovarian adhesiolysis and biopsy was successfully performed after subsequent placement of trans-omental secondary ports.

AUTHOR AFFILIATION: C. Georgiou; Wollongong Hospital / University of Wollongong (Illawarra Health and Medical Research Institute), NSW, Australia.

Session D / 1510-1520

POSTOPERATIVE PAIN RELIEF AFTER LAPAROSCOPIC GYNAECOLOGICAL SURGERY: A PILOT STUDY OF PRE-EMPTIVE SUPERIOR HYPOGASTRIC PLEXUS BLOCK USING 0.75% ROPIVACAINE. THE LAP-HYPOPLEX STUDY

Chou D, Reyftmann L, Liew A, Aust T, Cario G, Rosen D

BACKGROUND: The corpus, cervix and proximal fallopian tubes transmit pain through sympathetic fibres that arise from T10-L1. These fibres include neurons that are part of the uterosacral ligaments, and eventually merge into the superior hypogastric plexus (SHP). The SHP lies in front of L4 as a coalescence of fibres continuing the lumbar sympathetic chain. In the context of neural blockade, the SHP can be blocked in a manner analogous to lumbar sympathetic nerve block. The SHP block was first described percutaneously in 1990 (Plancarte, Amescua et al. 1990) and has shown potential benefits in patients experiencing chronic pelvic pain in the field of oncology but also in some specific post operative cases or after embolisation of the uterine arteries. Subsequently, the laparoscopic route has been described in the purpose of chronic pain mapping (Steege 1998).

AIM: The aim of this study is to review the analgesic efficacy of a pre-emptive intra-peritoneal superior hypogastric plexus (SHP) block with Ropivacaine 0.75% in laparoscopic gynaecological surgery for immediate postoperative analgesia.

MATERIAL AND METHODS: A total of 10 ASA Class I and II patients scheduled for laparoscopic endometriosis excision, major pelvic adhesiolysis, myomectomy, hysterectomy, sacrocolpopexy were included in the study. Upon achieving pneumoperitoneum and identifying the SHP anatomical landmark with the laparoscope, the patients received pre-emptive infiltration of the SHP block using 20ml of 0.75% Ropivacaine. Postoperative pain was recorded at 2h, 4h, 12 and 24h postoperatively by visual analogue scale VAS score. Pain was assessed and rescue IV narcotic was administered to keep the pain score NS < 3. Patient Control Analgesia (PCA) was administered only if needed to keep the NS score < 3. Adjuvant paracetamol and non-steroidal medication was also given as part of multimodal analgesia.

RESULTS: The VAS scores were very low at 2h (1,4+/-0.5), 4h (1,6+/-2.8), 6h (1,5+/-2.12) post-operatively but seemed to increase sharply at 12h (6,5+/-0.7). Cumulative analgesic consumption of rescue narcotic pain protocol in PACU and the total narcotic administration via PCA were also low. No adverse effects such as nausea, vomiting, itch, hypotension were recorded.

CONCLUSION: We demonstrated the feasibility of a laparoscopic SHP block. Finally, the optimal timing, dosage and concentration of ropivacain have yet to be established. This technique seems promising for immediate postoperative analgesia but further research is needed before any definitive conclusion can be made. We are currently setting up a prospective double blind RCT to review this issue. The results of our extended preliminary pilot study will be presented at the AGES XXI annual scientific meeting.

KEY WORDS: Pre-Emptive Analgesia / Superior Hypogastric Plexus Block / Ropivacaine / Laparoscopic Surgery / Complex Regional Pain Syndrome

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AUTHOR AFFILIATION: D. Chou, L. Reyftmann, A. Liew, T. Aust, G. Cario, D. Rosen; Sydney Womens Endosurgery Centre, St George Private Hospital, Kogarah, NSW, Australia.

FREE COMMUNICATIONS SESSION D FRIDAY 25 MARCH

Session D / 1520-1530 LAPAROSCOPY FOR THEATRE NURSES

Georgiou C

The first 'Laparoscopy for Theatre Nurses' course at Wollongong Public Hospital was conducted in March 2009.

The concept of teaching principles of laparoscopy to Theatre Nurses through the combination of a didactic and hands-on course was a novel and bold approach within a Public Hospital system, particularly as the course was designed as a regional teaching resource, at no cost to the participants.

The aim was to empower the Theatre Nursing staff to work as a 'team' during laparoscopic surgery whilst minimising risk and improving job satisfaction.

To date four such courses have been conducted involving some 30 participants from four separate hospitals within our region.

As the courses have occurred, past participants have returned as facilitators. Furthermore, one Nurse Educator attending first as participant and then as facilitator has subsequently returned to her hospital and conducted a similar laparoscopic course.

We are often concerned about the laparoscopic training of our Registrars and compare the laparoscopic surgeon to the airline pilot. However, we sometimes fail to see the similarities of the Theatre staff to the airport ground staff and the Control Tower of the airport. Data collection from the participants of these courses, together with the ongoing demand for the course, demonstrates that this is a worthwhile program for our Illawarra Shoalhaven Local Health Network. This paper demonstrates how we have taken a step towards providing a sustained and self-perpetuating Regional resource in our 'budget' Public airline.

AUTHOR AFFILIATION: C. Georgiou; Wollongong Hospital / University of Wollongong (Illawarra Health and Medical Research Institute), NSW, Australia.

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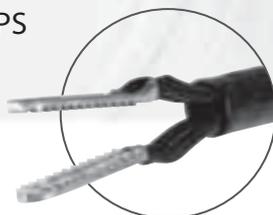
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SESSION E

FRIDAY 25 MARCH

Session E / 1400-1410

LAPAROSCOPIC SURGERY FOR ENDOMETRIOSIS IS ASSOCIATED WITH SIGNIFICANT IMPROVEMENTS IN QUALITY OF LIFE AS MEASURED BY THE EHP-30

Kew C, Lam A, Dunkley E, Patel P

STUDY OBJECTIVE: To evaluate the effect of laparoscopic treatment on quality of life utilising the Endometriosis Health Profile (EHP-30) in women with endometriosis.

MATERIALS AND METHODS: Prospective collection of data for patients who underwent laparoscopic surgery for treatment of endometriosis. Patients were invited to complete EHP-30 questionnaire before surgery and post-operatively at follow-up.

The pre and post-operative scores of the EHP-30 were compared and analysed.

MAIN OUTCOME MEASURES: Changes over time, comparing pre-operative and post-operative scores on the scales of the EHP-30. Patient demographics and symptoms were studied for their relationships with the change of scores over time.

RESULTS: Fifty-nine women completed pre and post-operative questionnaires. There were significant improvement in all core scales and some modular scales on the EHP-30. Presence of endometriosis-related pain symptom(s), and bowel symptoms had significant effects on changes in EHP-30 scores.

CONCLUSIONS: Laparoscopic treatment of endometriosis has positive effects on quality of life as measured by the EHP-30. Presence of certain symptoms may help determine the likelihood of improvement in scores. The results provide a basis for counselling and selecting patients for surgery, with regards to the psychosocial-emotional benefits of laparoscopic excision of endometriosis.

AUTHOR AFFILIATION: C. Kew, A. Lam, E. Dunkley, P. Patel; Centre for Advanced Reproductive Endosurgery, St Leonards, NSW, Australia.

Session E / 1410-1420

WHAT IS SONOVAGINOGRAPHY AND HOW CAN IT HELP THE LAPAROSCOPIC SURGEON?

Reid S, Winder S, Reid G, Abbott J, Cario G, Chou D, Condous G

OBJECTIVE: To use sonovaginography (SVG) to predict the severity and location of endometriosis prior to laparoscopic surgery.

INTRODUCTION: To date, there is a lack of a reproducible, accurate pre-operative ultrasound assessment for women with chronic pelvic pain, prior to surgery. Often a 'normal' pelvic ultrasound report is followed by a positive laparoscopy for endometriosis. The aim of this study is to use a new ultrasound technique, sonovaginography (SVG), to predict endometriosis location and severity, in women planned for laparoscopic endometriosis surgery and in turn challenge the conventional ultrasound reporting of a 'normal' pelvis.

METHODS: This is a continuing, prospective observational study, which started in June 2009. The study included reproductive women with a history of any of the following: chronic pelvic pain, dysmenorrhoea, dyspareunia, dyschezia, or a history of previous endometriosis with recurrent symptoms. All women were planned for laparoscopic endometriosis surgery. A history was obtained and an ultrasonographic evaluation with SVG was performed on all women prior to laparoscopy. SVG is a new technique, based on transvaginal (TV) ultrasonography, combined with the introduction of gel into the posterior fornix. The gel creates an acoustic window between the TV probe and the surrounding structures of the vagina. During SVG, the following structures may be visualised: Anterior and posterior vaginal fornices, anterior and posterior vaginal walls, retrocervical area, uterosacral ligaments, pouch of Douglas, rectovaginal septum, and rectosigmoid colon. In this study, SVG was used to predict obliteration of the POD and posterior compartment deep infiltrative endometriosis (DIE). Women underwent laparoscopic surgery for diagnosis and, if necessary, surgical treatment of endometriosis. The correlation between SVG findings and laparoscopic findings was then analysed to assess the ability of SVG to predict obliteration of the POD in conjunction posterior compartment DIE.

RESULTS: To date, complete SVG and laparoscopic data were available for 43 women who underwent SVG, followed by laparoscopy. SVG identified 8/10 (80%) of patients with an obliterated POD. Of the eight patients with an obliterated POD at SVG, six patients were also found to have co-existent midline posterior compartment DIE on laparoscopy. All six cases of obliterated POD with midline posterior compartment DIE were correctly identified at SVG. Six out of seven (86%) cases with midline DIE also had an obliterated POD. The sensitivity and specificity for detecting POD obliteration in conjunction with midline posterior compartment DIE were 100% and 97.3%, respectively. The PPV and NPV were 85.7% and 100%, respectively.

CONCLUSION: Although the numbers are small, midline posterior compartment DIE was almost always associated with POD obliteration during SVG. These ultrasound findings are consistent

FREE COMMUNICATIONS

SESSION E

FRIDAY 25 MARCH

with the experience of advanced laparoscopic endometriosis surgeons, and challenge the concept of a “normal” pelvic ultrasound.

AUTHOR AFFILIATION: S. Reid¹, S. Winder¹, G. Reid², J. Abbott³, G. Cario², D Chou², G. Condous¹; 1. Acute Gynaecology, Early Pregnancy and Advanced Endosurgery Unit, Nepean Hospital, Australia, 2. Sydney Women’s Endosurgery Centre, NSW, Australia, 3. Royal Hospital for Women, Randwick, NSW, Australia.

Session E / 1420-1430

SURGICAL MANAGEMENT OF DEEPLY INFILTRATING ENDOMETRIOSIS OF THE URINARY TRACT: THE RATIONALE FOR REFERRAL CENTRES

Patel PS, Dunkley EJC, Lam A

Endometriosis involving the urinary tract is rare and occurs in only about 1-2% of all endometriosis cases (1). Nonspecific symptoms often lead to under-recognition of advanced disease, and therefore to inadequate preoperative assessment, counselling and consent. Furthermore, deeply infiltrating lesions frequently appear superficial at the time of surgery: they either get incompletely excised or ablated, leading to suboptimal outcomes and the need for repeat procedures, or, an impromptu attempt is made to remove them, placing the patient at significant risk for complications. Ideally, such women should be recognised as ‘high risk’ and referred for care at a dedicated multi-disciplinary tertiary endometriosis centre.

We present two cases of endometriosis involving the urinary tract, in order to:

- illustrate the difference in outcomes of patients undergoing see-and-treat management by a non-expert, when compared to those triaged for referral care at the time of presentation
- describe the principles of surgical management of deeply infiltrating endometriosis (DIE).

AUTHOR AFFILIATION: P. S. Patel, E. J. C. Dunkley, A. Lam; Centre for Advanced Reproductive Endosurgery (CARE), St Leonards, NSW, Australia.

Session E / 1430-1440

PRE-OPERATIVE MRI FOR ASSESSMENT OF BOWEL INVOLVEMENT IN PATIENTS WITH DEEP PELVIC ENDOMETRIOSIS – DOES TIMING OF MENSTRUAL CYCLE MAKE A DIFFERENCE?

Cameron M, Jagasia N, Readman E, McIlwaine K, Esler S, Maher PJ.

OBJECTIVE: To prospectively assess MRI pattern during phases of the menstrual cycle and determine if it made a difference to recognition of deep pelvic endometriosis deposits. Secondary objectives included evaluating the accuracy of pelvic MRI in diagnosing bowel involvement and its value as a tool for planning a multidisciplinary approach to surgery.

METHODS: 25 patients were recruited with clinical evidence of severe endometriosis, potentially involving bowel. Patients had two pelvic MRI scans, one during menstruation and the other mid-cycle. A single radiologist that was blinded to timing of menstrual cycle interpreted all MRI scans. Cases were discussed at a multi-disciplinary meeting to decide whether the colorectal surgical team needed to be involved during surgery. Correlation between MRI diagnosis and surgical and pathology findings was carried out to calculate sensitivity, specificity, predictive values and overall accuracy of menstrual versus non-menstrual MRI.

RESULTS: 25 patients were recruited to the trial. Two patients elected not to have surgical treatment. A further two patients were excluded as they did not have both menstrual and mid-cycle scans.

Bowel lesions were suspected on MRI in 14 out of 23 patients (61%). Bowel resection was anticipated to be required in nine patients (39%).

The sensitivity and specificity of MRI for recognising endometriosis involving the rectum / sigmoid were: 60% and 73% respectively for menstrual MRI and 60% and 91% respectively for mid-cycle MRI. Overall accuracy of menstrual MRI was 67% compared with 76% for mid-cycle MRI.

Six out of 21 (29%) of patients had evidence of bowel involvement on both MRI scans and 83% of these bowel lesions were confirmed at surgery. In contrast, 50% of bowel lesions were confirmed at surgery in patients who had bowel involvement evident on only a single MRI scan.

FREE COMMUNICATIONS

SESSION E

FRIDAY 25 MARCH

At surgery, seven patients required bowel resection. Six out of seven (86%) had been predicted on MRI. The sensitivity, specificity, PPV, NPV and overall accuracy of MRI for prediction of bowel resection was 86%, 81%, 67%, 93% and 83% respectively. All resection specimens had endometriosis within the rectal muscularis propria and six out of seven (86%) had submucosal involvement.

Of the 13 cases where colorectal were in attendance, they were required at surgery in nine cases (70%). There were no cases where colorectal involvement was not anticipated but required.

CONCLUSION: Menstrual and mid-cycle MRI scans have similar detection rates for bowel endometriosis. MRI is a valuable tool for planning a multidisciplinary approach to surgery and for preparing patients for potential bowel resection.

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AUTHOR AFFILIATION: M. Cameron¹, N. Jagasia¹, E. Readman¹, K. McIlwaine¹, S. Esler², P. J. Maher¹; 1. Mercy Hospital for Women, Heidelberg, Victoria, Australia. 2. Austin Health, Heidelberg, Victoria, Australia.

Session E / 1440-1450

IS UTERINE RETROVERSION A MARKER OF POUCH OF DOUGLAS OBLITERATION IN PATIENTS WITH ENDOMETRIOSIS?

Patel PS, Dunkley EJC, Luscombe G, Lam A

OBJECTIVE: To assess the predictive value of a retroverted uterus for finding an obliterated Pouch of Douglas (POD) at the time of laparoscopy for treatment of endometriosis.

METHODS: A retrospective analysis was conducted on all patients who underwent laparoscopic treatment of endometriosis at a university-affiliated tertiary referral centre. Data on uterine

configuration were obtained from documented findings on physical examinations performed under anesthesia and during pre-operative visits, as well as on routine transvaginal ultrasonography. Whether the POD was obliterated was determined by findings recorded on operative reports.

RESULTS: A total of 467 consecutive women had laparoscopic excision of endometriosis during a four-year period starting in October 2004. Of them, 454 had intact uteri without congenital abnormalities. Sixty six percent had a mobile, anteverted uterus, 1% had an anteverted uterus with limited mobility, 14% had a mobile, retroverted uterus, and 19% had a fixed, retroverted uterus.

POD obliteration was found in 110 (24%) cases overall. Compared to patients with a mobile, anteverted uterus, the odds ratio for POD obliteration in those with a fixed anteverted uterus, a mobile, retroverted uterus, and a fixed retroverted uterus were 12.8 (95% CI: 2.2-75.3), 19.3 (95% CI: 8.4-44.4) and 240.8 (95% CI: 94.5-613.9) respectively.

Uterine immobility increased the odds of POD obliteration 51-fold (95% CI: 26.5-98.9), while retroversion increased it 53-fold (95% CI: 26.5-105.6).

CONCLUSIONS: A retroverted uterus, especially when immobile, is a strong predictor of POD obliteration in patients undergoing laparoscopic treatment for endometriosis. Since POD obliteration has been shown to be a marker of severe endometriosis, often with bowel involvement, clinicians may consider referring these patients to a dedicated endometriosis centre with multidisciplinary expertise for further management.

AUTHOR AFFILIATION: P. S. Patel, E. J. C. Dunkley, G Luscombe, A. Lam A; Centre for Advanced Reproductive Endosurgery (CARE), St Leonards, NSW, Australia.

Session E / 1450-1500

CONCOMITANT DIAGNOSIS OF ENDOMETRIOSIS IN PATIENTS PRESENTING WITH SYMPTOMATIC FIBROIDS: THE IMPORTANCE OF A THOROUGH INSPECTION AT LAPAROSCOPY

Dunkley EJC, Patel PS, Lam A

Fibroids are a common benign disease. When symptomatic, they may cause pain, irregular bleeding, subfertility and pressure symptoms affecting bladder and bowel function. Pain caused by fibroids is usually mild, however some women present with a

FREE COMMUNICATIONS SESSION E FRIDAY 25 MARCH

significant pain component to their symptomatology. In our practice we have noticed an association of the presence of fibroids and the symptom of significant pain as a potential marker for the co-existence of endometriosis. This correlation has been supported in a study by Huang et al that found 86% of patients presenting with symptomatic fibroids had a concomitant diagnosis of endometriosis made at laparoscopy¹. This is of particular relevance to women in the reproductive age group who present with subfertility and a fibroid. It is also extremely important that the counselling and consent of patients undergoing myomectomy include discussion of the potential for diagnosis and treatment of endometriosis. At the time of surgery a thorough inspection for endometriosis, and excision if present, should occur prior to the myomectomy. This is particularly important in the presence of a large bulky uterus that may obscure the pouch of Douglas and ovarian fossa.

The objective of this video presentation is to provide an example of two patients to demonstrate the need for thorough inspection of the pelvis and abdomen at the time of laparoscopy for fibroids. These patients had pain symptoms out of proportion to the presence of fibroids alone and were counselled and consented for excision of endometriosis prior to surgery. Techniques to identify nodular endometriosis will also be demonstrated.

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AUTHOR AFFILIATION: E. J. C. Dunkley, P. S. Patel, A. Lam; Centre for Advanced Reproductive Endoscopy (CARE), Sydney, NSW, Australia.

Session E / 1500-1510

CAN WE PREDICT POSTERIOR COMPARTMENT DEEP INFILTRATIVE ENDOMETRIOSIS (DIE) USING SONOVAGINOGRAPHY IN WOMEN UNDERGOING LAPAROSCOPY FOR CHRONIC PELVIC PAIN?

Reid S, Winder S, Reid G, Abbott J, Cario G, Chou D, Condous G

INTRODUCTION: To date, there is a lack of reproducible accurate pre-operative assessment for rectovaginal disease during ultrasound. The aim of this study is to use sonovaginography (SVG)

to predict posterior compartment deep infiltrative endometriosis (DIE) in women undergoing laparoscopy for chronic pelvic pain.

MATERIALS/METHOD: This is an ongoing, prospective observational study, which began in June 2009. All women included in this study were of reproductive age, had a history of chronic pelvic pain, and had a plan for laparoscopic endometriosis surgery. A history was obtained and an ultrasonographic evaluation with SVG was performed on all women prior to laparoscopy. During SVG, 20mL of ultrasound gel was inserted into the posterior fornix of the vagina, followed by the insertion of a transvaginal (TV) ultrasound probe. The gel created an acoustic window between the TV probe and the surrounding structures of the vagina, allowing for visualisation of the posterior compartment. SVG was then used to predict DIE prior to surgery. All women underwent laparoscopic surgery for diagnosis and, if necessary, surgical treatment of endometriosis. The correlation between SVG and laparoscopic findings was then analysed to assess the ability of SVG to predict posterior compartment deep infiltrative endometriosis.

RESULTS: To date, complete SVG and laparoscopic data was available for 43 women who underwent SVG, followed by laparoscopy. The sensitivity and specificity for SVG in the prediction of midline posterior compartment deep infiltrative endometriosis, as defined as rectovaginal, retrocervical and rectosigmoid nodules, was 88% and 91%, respectively. The PPV and NPV were 70% and 97%, respectively. When SVG was used to predict DIE in both midline (i.e. rectovaginal, retrocervical and rectosigmoid nodules) and lateral regions (i.e. uterosacral ligaments) the sensitivity and specificity were 67% and 89% respectively. The PPV and NPV were 77% and 83%, respectively.

CONCLUSIONS: SVG appears to be more effective in predicting DIE in the midline posterior compartment (i.e. rectovaginal, retrocervical, and rectosigmoid locations) in comparison to lateral DIE (i.e. uterosacral regions). SVG provides additional diagnostic information to conventional pelvic sonography, which may allow for the planning of specific endometriosis surgery and the need for colorectal input. SVG in the absence of a nodule has a high negative predictive value for the absence of midline rectovaginal disease.

AUTHOR AFFILIATION: S. Reid¹, S. Winder¹, G. Reid², J. Abbott³, G. Cario², D Chou², G. Condous¹; 1. Acute Gynaecology, Early Pregnancy and Advanced Endosurgery Unit, Nepean Hospital, Australia, 2. Sydney Women's Endosurgery Centre, NSW, Australia, 3. Royal Hospital for Women, Randwick, NSW, Australia.

FREE COMMUNICATIONS

SESSION E

FRIDAY 25 MARCH

Session E / 1510-1520

A STUDY OF FERTILITY AND PREGNANCY OUTCOMES FOLLOWING THE LAPAROSCOPIC SURGICAL REMOVAL OF STAGE 3 AND 4 ENDOMETRIOSIS

Campbell NT, Maley P, Hooshmand D, Won H, Abbott J

OBJECTIVE: The objective of this study is to report fertility outcomes following laparoscopic removal of documented and histologically confirmed stage 3 and 4 endometriosis.

DESIGN: This is a retrospective descriptive study.

SETTING: Royal Hospital for Women, Randwick, Urban tertiary referral hospital in Sydney, Australia.

PATIENTS: Women who had surgery for stage 3 and 4 endometriosis between 1997-2008 at this institution.

INTERVENTIONS: Patient files have been reviewed for eligibility and demographic data extracted. Patients were mailed a questionnaire regarding fertility outcomes following an index surgery. Additional data on repeat surgical and medical treatments, number of pregnancies, their outcomes and any assisted reproductive technology data have been collected.

MEASUREMENTS & MAIN RESULTS: We have identified 300 women who are eligible and have had surgery and 200 women have so far been contacted, consent for participation attained and questionnaires sent to them. Non respondents have been contacted by telephone and where necessary a further survey sheet is being sent out. To date, 155 women have returned completed questionnaires and data is being entered into the database. We anticipate a response rate of 80% that will give us information on approximately 240 women. This study will be completed by the end of July 2011.

CONCLUSIONS: 84/155 women have been trying for a pregnancy with 67/84 (80%) women achieving at least one pregnancy. 54% have achieved this spontaneously, and 26% have had a successful ART pregnancy. 20% of women have been unable to achieve a pregnancy naturally or with assistance.

AUTHOR AFFILIATION: N. T. Campbell¹, P. Maley², D. Hooshmand¹, H. Won¹, J. Abbott¹; 1. Royal Hospital for Women, Randwick, NSW, Australia 2. University of New South Wales, Sydney, NSW, Australia.

Session E / 1520-1530

METASTATIC COLONIC ADENOCARCINOMA MASQUERADING AS SEVERE ENDOMETRIOSIS

Patel PS, Dunkley EJC, Lam A

Endometriosis is a common cause of pelvic pain, affecting between 5 to 15% of women of reproductive age¹. In women who have undergone laparoscopic treatment for endometriosis, a return of their pain symptoms usually indicates disease recurrence. Studies have reported a recurrence rate for endometriosis of 10-15% at one year, and as high as 40-50% at 5 years follow-up^{2,3}. When a patient with a suspicious history for endometriosis, including a previous surgery for treatment of endometriosis, presents with symptoms indicating disease recurrence, it is imperative that the possibility of the actual pathology being something other than recurrent endometriosis be explained to them prior to booking repeat surgery. Intraoperatively, it is beneficial to excise endometriotic lesions, rather than ablate them, not only because the true extent of the disease is often not obvious to simple inspection, but also because histopathology serves to rule out other pathology that may have a similar appearance to endometriosis.

This is illustrated by a case report of a 34-year old who presented with persistent and increasing cyclical pelvic pain, diarrhoea, dyschezia and occasional rectal bleeding, after having undergone laparoscopic diathermy to endometriotic cysts and deposits four years earlier. She was referred to a tertiary endometriosis centre, where she received counselling that, while her symptoms could indicate persistence and worsening of bowel endometriosis, the actual nature and extent of the pathology would not be apparent until the time of surgery. It was also indicated to her and documented that, although rare, the eventual histopathological diagnosis could differ from the operative diagnosis. At the time of her operation, severe endometriosis was diagnosed with multiple peritoneal and visceral nodules being present. However, thorough examination also discovered findings atypical to endometriosis: Both ovaries contained friable tissue within chocolate cysts, and the liver was enlarged with solid irregular lesions. Tissue from the left ovary was found to have at least a high grade borderline tumour on intraoperative frozen section. Biopsies from all other lesions showed adenocarcinoma of unknown origin on final pathology. CEA was elevated at 1,979, and colonoscopy confirmed a sigmoid primary. Due to the high volume of metastatic disease, which included a 14cm liver lesion, she was initially treated with intravenous chemotherapy, and later underwent interval debulking of residual disease.

FREE COMMUNICATIONS

SESSION F

FRIDAY 25 MARCH

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AUTHOR AFFILIATION: P. S. Patel, E. J. C. Dunkley, A. Lam;
Centre for Advanced Reproductive Endosurgery (CARE),
St Leonards, NSW, Australia.

Session F / 1400-1410

HYSTEROSCOPIC REMOVAL OF MIRENA IUCD WITH MISSING THREADS DURING PREGNANCY: A VIDEO PRESENTATION

Jagasia N, Maher P

A 30-year old gravida 2 para 1 presents with an unplanned pregnancy at 9 weeks gestation with ultrasound evidence of a retained intrauterine levonorgestrel releasing (Mirena) IUCD. The strings were not visible on vaginal examination. After counselling, the patient elected to have removal of the IUCD.

Normal saline hysteroscopy was undertaken under general anaesthetic. A 2.7mm rigid, 30 degree optic hysteroscope with a 5mm operative sheath was utilised. Under concurrent trans-abdominal ultrasound guidance the Mirena was located in the right lateral uterine corpus, below the gestational sac. Grasping forceps introduced through the operative channel of the hysteroscope were used to remove the IUCD under direct vision. Despite a degree of sub-chorionic separation secondary to uterine distension medium, the patient continues to sustain a viable intrauterine pregnancy to date.

Pregnancies occurring in the presence of an intra-uterine device are rare with an estimated incidence of 0.5 to 0.8%. Among women who conceive with an IUCD in situ, the spontaneous abortion rate is 40 to 50%. Removal of the IUCD in the first trimester is advised given the increased risk of sepsis, spontaneous abortion and pre-term birth. Complications such as migration of the IUD into the peritoneal cavity during pregnancy and subsequent bowel perforation have been reported in literature. Data on hysteroscopic removal of IUCDs in early pregnancy are limited; therefore, it is not clear whether this technique poses greater or lesser risk of pregnancy loss than instrument removal under ultrasound guidance. There is little data on the teratogenicity of progesterone released from the Mirena device on the developing embryo.

AUTHOR AFFILIATION: N. Jagasia, P. Maher; Department of Endosurgery, Mercy Hospital for Women, Heidelberg, Victoria, Australia.

FREE COMMUNICATIONS

SESSION F

FRIDAY 25 MARCH

Session F / 1410-1420

TIPS & TRICKS IN MYOMECTOMY – FROM LAPAROSCOPY TO LESS

Siow A

Myomectomy is becoming an increasingly popular surgical procedure as more women realise from screening ultrasound that they have fibroids. Many of these women are relatively young and wish for future fertility. Some of these women are approaching menopause but still wish to avoid a hysterectomy. For all women requiring myomectomy, the choice between laparotomy and laparoscopy is obvious. With smaller and kinder cuts, the recovery and cosmesis from laparoscopic myomectomy is highly attractive. However, laparoscopic myomectomy is not without its risk as it can be a challenging procedure when the fibroid is large and when extensive suturing is required. There are also issues with regards to future fertility and pregnancy outcome that can be compromised if surgery is not carried out optimally.

At KK Women's & Children's Hospital, Singapore, around 700 myomectomy procedures are carried out annually with 55% of them via laparoscopic approach. Since Mar 2010, we embarked on myomectomy via Lapro-Endoscopic Single Site (LESS) approach. In the last 10 years of laparoscopic myomectomy, we have standardised our surgical steps to make laparoscopic myomectomy straightforward and safe. We have also not encountered any uterine rupture in pregnancy after myomectomy.

We present our experience in laparoscopic as well as the new LESS myomectomy with focus on the tips and tricks to make surgery straightforward and uncomplicated.

AUTHOR AFFILIATION: A. Siow; KK Women's & Children's Hospital, Singapore.

Session F / 1420-1430

A VIDEO OF A LAPAROSCOPIC MYOMECTOMY OF A 20 WEEK SIZED FIBROID IN A 23-YEAR OLD WOMAN

Soo S, Mirmilstein V, Lee S, Ang WC

The techniques of laparoscopic myomectomy will be outlined during video presentation mainly focussing on perioperative approach, instrumentation used, difficulties encountered and risk management discussion.

The fibroid, besides being particularly large, rose above the umbilicus necessitating high port placement.

The fibroid also originated from the cervix displacing the bladder laterally to the right of the pelvis resulting in distorted anatomy at the uterovaginal fold and elongating the path of the left ureter.

Several key moments in the surgery required consideration of distorted anatomy; the decisions and techniques to achieve this will be discussed with the aid of the video.

AUTHOR AFFILIATION: S. Soo, V. Mirmilstein, S. Lee, W. C. Ang; The Royal Women's Hospital, Parkville, Victoria, Australia.

Session F / 1430-1440

MRI GUIDED FOCUSED ULTRASOUND (MRgFUS) TREATMENT OF FIBROIDS: 12 MONTH FOLLOW UP

Kaur H, Dobrotwir A, Pun E, Ang WC

INTRODUCTION: MRgFUS is a non-invasive treatment modality approved for the treatment of fibroids. It is an outpatient ambulatory procedure performed with conscious sedation approved by the US Food and Drug Administration (FDA) in 2004¹. Compared to surgical modalities and uterine artery embolisation (UAE), MRgFUS is associated with minimal morbidity, minimal radiation exposure and quick return to daily activities². Many studies have shown that MRgFUS significantly improves clinical symptoms in 70-83% of women treated for uterine fibroids^{2,3,4}. In Australia, the first clinical centre to offer this treatment is the Royal Women's Hospital Melbourne. From May 2009 to May 2010, 52 women have been treated with MRgFUS.

MATERIALS/METHOD: 52 women with symptomatic fibroids underwent MRgFUS from May 2009 to May 2010 using the ExABLATE 2000 system. The symptom severity score (SSS) was examined before and after the treatment (at 4, 6 and 12 months). Additional post MRgFUS outcomes such as hysterectomy or myomectomy and re-intervention rate were also recorded. Exclusion criteria for treatment are age <18yo, fibroids <2.5cm or >12cm, deep fibroids (>12cm from skin), fibroid in close proximity to bone surface or lumbosacral plexus, extensive abdominal scarring, contraindication to MRI (includes claustrophobia, pacemaker or metal prostheses) and patient weight >100kg.

RESULTS: 52 women (average age 42 years, range 29-57 years) with symptomatic fibroids were treated from May 2009 - May 2010. At the four month follow-up visit, the symptom severity (SSS) score

FREE COMMUNICATIONS SESSION F FRIDAY 25 MARCH

reduced from 58 ± 24 to 36 ± 24 and the values reduced during the twelve month follow up period to a mean value of 29. For treated fibroids, the mean Non Perfused Volume (NPV) was attained immediately after treatment: $64\% \pm 27\%$. Only 3 patients required re-intervention with repeat MRgFUS. Out of the 52 patients, 4 required surgical intervention within the 12 months of treatment with MRgFUS (one subtotal hysterectomy for intractable menorrhagia, two open myomectomies for persistent pressure symptoms and one hysteroscopic resection for a large prolapsed fibroid).

CONCLUSIONS: The reduction in symptom severity score, volume reduction of treated fibroids and relatively low intervention rates is encouraging despite being a new procedure in this country. MRgFUS is a safe and effective treatment for symptomatic fibroids.

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AUTHOR AFFILIATION: H. Kaur, A. Dobrotwir, E. Pun, W. C. Ang; Royal Women's Hospital, Parkville, Victoria, Australia.

Session F / 1440-1450 **WHY ARE SOME ECTOPIC PREGNANCIES CHARACTERISED AS PREGNANCIES OF UNKNOWN LOCATION AT THE INITIAL TRANSVAGINAL ULTRASOUND EXAMINATION? 3D VOLUMETRIC TRANSVAGINAL EVALUATION OF THE ECTOPIC PREGNANCY MASS**

Winder S, Reid S, Pixton S, Condous G.

OBJECTIVE: To compare the 3Dimensional (3D) appearance and behaviour of ectopic pregnancies (EPs) initially classified as

pregnancies of unknown location (PULs) to those visualised on the initial transvaginal ultrasound scan (TVS).

METHODS: An ongoing prospective observational study from October 2008 till Dec 2010 on women undergoing a 3D TVS prior to diagnosis of a tubal EP. Demographic details, 3D volumetric TVS findings relating to the EP mass and serum hCG levels were recorded at the time of the initial 3D TVS and at the time of diagnosis of the EP in those initially classified as a PUL. Volume data sets were analysed using virtual organ computer-aided analysis (VOCAL) with regards to the EP volume. The EP volume was manually calculated with VOCAL in the longitudinal plane with 30 degrees rotation steps.

RESULTS: 143 women to date with a tubal EP underwent a 3D TVS prior to treatment. In 80.0% (115/143) the EP was visualised on the initial TVS while 15% (21/143) were initially classified as PULs. Those initially classified as PULs had comparable mean gestational age and a lower mean initial human chorionic gonadotrophin (hCG) levels than those where the EP was visualised on the initial TVS, although these were not significantly different. At the time of diagnosis those EPs initially classified as PULs had significantly lower volumes compared to those where the EP was visualised on the initial TVS (2.0 vs 5.5cm^3 respectively, $p\text{-value}=0.009$).

CONCLUSION: Although the numbers are small, in women with EPs who are initially classified as PULs, failure of visualisation of the EP on the initial TVS is likely to be due to the fact that they are too small and probably too early in the disease process.

AUTHOR AFFILIATION: S. Winder, S. Reid, S. Pixton, G. Condous; Acute Gynaecology, Early Pregnancy And Advanced Endosurgical Unit, Nepean Hospital, Penrith, NSW, Australia.

Session F / 1450-1500 **PARASITIC FIBROIDS MISTAKEN FOR MALIGNANCY RESULTING IN BOWEL RESECTION**

Aust T, Reyftmann L, Gale P, Chou D, Rosen D, Cario G, Robertson G

A 41-year old woman presented with periumbilical pain which was severe enough to make her faint. A CT scan showed two large abdominopelvic masses measuring 7 and 13cm. The lesions were of soft tissue texture with multiple cystic components. Aortocaval lymphadenopathy was present and the right ureter was obstructed at the level of the pelvic brim. There was a small amount of ascites.

FREE COMMUNICATIONS

SESSION F

FRIDAY 25 MARCH

CA 125 was elevated at 174 U/ml and CA19-9 at 85 kU/L .

Past history revealed two caesarean sections and a hysterectomy with conservation of both ovaries three years previously.

A laparotomy through a midline incision was performed by a gynaecological oncologist who found the 15cm mass arising from the medial border of the rectosigmoid colon and the 7cm lesion was on the serosal surface of the distal descending colon. A bilateral salpingoophorectomy, infracolic omentectomy, appendicectomy, para-aortic lymph node dissection and high rectosigmoid resection with primary anastomosis were performed. She made a good recovery except for postoperative constipation and hot flushes.

Histopathology of the lesions revealed a whorled grey white appearance which was confirmed microscopically as adenomyoma with no evidence of malignancy.

The lesions are presumed to have been caused by morcellation at the original laparoscopic hysterectomy. The issues of prevention of parasitic fibroids and whether or not this woman's extensive surgery could have been avoided will be discussed.

AUTHOR AFFILIATION: T. Aust¹, L. Reyftmann¹, P. Gale², D. Chou¹, D. Rosen¹, G. Cario¹, G. Robertson²; 1. Sydney Womens Endosurgery Centre, St George Private Hospital, Kogarah, NSW, Australia. 2. St George Private Hospital, Kogarah, NSW, Australia.

Session F / 1500-1510

OUTPATIENT HYSTEROSCOPY AUDIT: A COMPARISON OF VAGINOSCOPIC APPROACH WITH TRADITIONAL TECHNIQUE

Jagasia N, McIlwaine K, Readman E, Cameron M, Maher P

BACKGROUND: The ambulatory hysteroscopy clinic at the Mercy Hospital for Women has been prospectively collecting data on the patients since 2003. In 2008 the clinic adopted the vaginoscopic or 'no touch' technique to hysteroscopy. The vaginoscopic approach allows for hysteroscopy to be performed without the need for a vaginal speculum or tenaculum to grasp the cervix.

OBJECTIVE: The object of this study was to assess whether the vaginoscopic approach has a higher patient acceptability compared with the traditional approach to hysteroscopy.

RESULTS: Between May 2003 and December 2010, 600 women were seen through the outpatient hysteroscopy clinic. 158 women were excluded from analysis because they had concurrent insertion of IUCD, pre-stated their non-acceptance of the procedure or had

incomplete data sets. Of the remaining 442 women, 290 women underwent traditional hysteroscopy and 152 women had the vaginoscopic approach to hysteroscopy between June 2008 and December 2010.

There was no significant difference in rates of acceptance (i.e. willingness to re-attend for the procedure) between patients who underwent the vaginoscopic approach compared to those who had a traditional hysteroscopy (91.5% versus 90.0%, $P = 0.61$). Both methods had similar overall success rates. 94.7% of hysteroscopies were successfully completed after we adopted the vaginoscopic approach comparable to the 95.9% success rate with traditional hysteroscopy ($P = 0.60$).

There was no significant difference in the mean or median VAS scores for pain experienced during the procedure between the two groups [mean VAS vaginotomy 4.09 (95% CI 3.7 - 4.48), median VAS vaginotomy 4.0 versus mean VAS traditional hysteroscopy 3.85 (95% CI 3.54 - 4.16), median VAS traditional hysteroscopy 4.0].

68.4% of patients in the vaginotomy group required no anaesthetic use what so ever for their procedure compared to only 0.69% of patients in the traditional hysteroscopy group that had no anaesthetic used.

Procedure success was a strong determinant of patients' acceptability with a significantly higher rate of unsuccessful procedures amongst women who would not have the procedure again (35.71% versus 1.25%, $P < 0.05$). There was trend toward a higher rate of vasovagal episodes (11.9% versus 4.0%) as well as a higher rate of conversion to traditional hysteroscopy within the vaginotomy group (30.7% versus 23.0%) among women who found the procedure unacceptable.

CONCLUSION: The vaginoscopic approach to outpatient hysteroscopy is safe and achieves similar success and patient acceptability rates when compared to traditional hysteroscopy. There is significantly less use of any form of anaesthetic with the vaginoscopic approach, without a negative impact on pain scores or patients' acceptability of the procedure.

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FREE COMMUNICATIONS

SESSION F

FRIDAY 25 MARCH

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AUTHOR AFFILIATION: N. Jagasia, K. McIlwaine, E. Readman, M. Cameron, P. Maher; Department of Endosurgery, Mercy Hospital for Women, Victoria, Australia

Session F / 1510-1520

WHERE IS IT! THE CASE OF THE MISSING MYOMA SCREW

Wang L, Amir M, Tsaltas J

Laparoscopic myomectomy is an effective treatment option for those who desire future fertility. It is an increasing popular surgical option, that requires specialised skills and equipment. It allows for faster recovery time and less pain, and with the emergence of new sutures, allows for improved efficiency in the operating time.

Here we describe the scenario of breakage of laparoscopic myoma screw during laparoscopic myomectomy, and demonstrate the methods for safely extracting the instrument and completing the operation.

AUTHOR AFFILIATION: L. Wang, M. Amir, J. Tsaltas; Monash Endosurgery Unit, Monash Medical Centre, Clayton Victoria, Australia.

Session F / 1520-1530

ESTIMATION OF UTERINE DRY WEIGHT FROM PRE-OPERATIVE 3D UTERINE VOLUME ULTRASOUND EVALUATION IN WOMEN UNDERGOING TOTAL LAPAROSCOPIC HYSTERECTOMY (TLH)

Winder S, Reid S, Mongelli M, Condous G

OBJECTIVE: To derive a formula allowing the estimation of uterine dry weight from pre-operative 3D uterine volume ultrasound evaluation in women undergoing TLH.

METHODS: This is an ongoing prospective study on women undergoing TLH. Data collected includes patient age, parity, height, weight, 3D ultrasound estimated uterine volume, operative blood loss and dry weight as measured by our pathology service. Volume data sets were analysed using virtual organ computer-aided analysis (VOCAL) with regards to the uterine volume. The uterine volume

was manually calculated with VOCAL in the longitudinal plane with 30 degrees rotation steps. A prediction model was developed using multiple regression analysis to predict uterine dry weight.

RESULTS: To date 50 cases of TLH were available for analysis. The mean age was 45.5 years (SD 6.4), the ultrasound estimated volumes ranged from 26.4ml to 1507ml. The correlation coefficient between ultrasound volumes and dry weight was 0.98. The weight estimation formula was: uterine weight (g) = 1.03 Uterine volume +20.4 parity -13.8. The 95% CI for prediction errors was -218g to 164g.

CONCLUSION: Uterine weight can be estimated from pre-operative 3D uterine volumetric data in women undergoing TLH with a fair degree of accuracy. This technology could be potentially used to predict to the need to morcellate in the future.

AUTHOR AFFILIATION: S. Winder, S. Reid, M. Mongelli, G. Condous; Acute Gynaecology, Early Pregnancy And Advanced Endosurgical Unit, Nepean Hospital, Penrith, NSW, Australia.

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