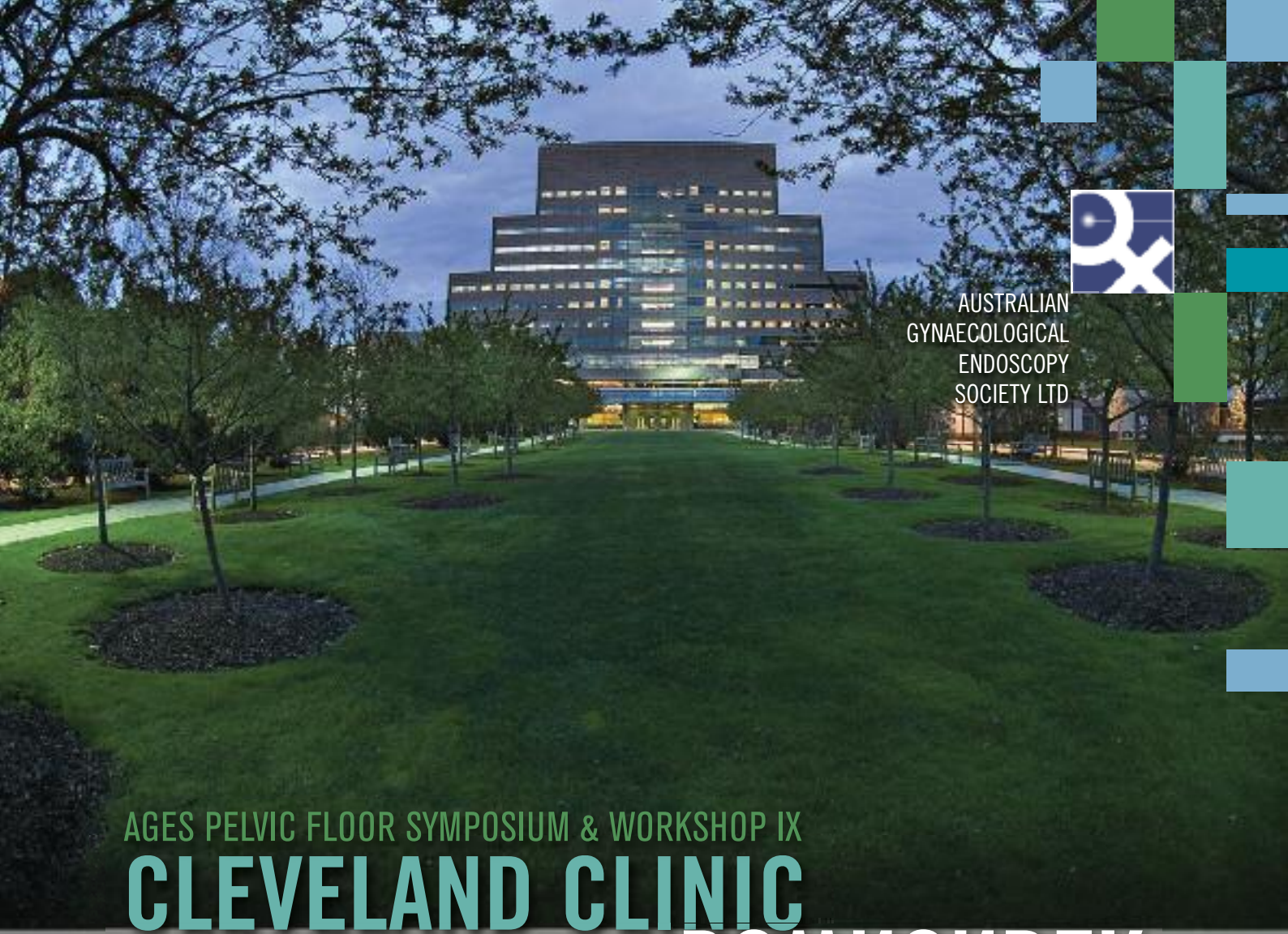

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AGES PELVIC FLOOR SYMPOSIUM & WORKSHOP IX

CLEVELAND CLINIC DOWNUNDER

SYDNEY 8 & 9 AUGUST **2008**

Four Seasons Hotel, Sydney Australia

International Faculty

Professor Mark Walters
Dr Marie Fidela Paraiso
Dr Ty Erickson

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AGES PELVIC FLOOR SYMPOSIUM & WORKSHOP IX

CLEVELAND CLINIC DOWNUNDER

Contents

Sponsors & Exhibitors	inside front cover
Faculty and Committee Members	2
Welcome Message	3
Program	4
AGES Awards	7
Abstracts	
Friday 8 August	9
Free Communications 1	19
Free Communications 2	23
Free Communications 3	27
Saturday 9 August	31
Future AGES Meetings	inside back cover

AGES Pelvic Floor Symposium & Workshop IX 2008
CLEVELAND CLINIC DOWNUNDER

Registration fees include:

- Attendance at all Conference sessions including live surgery at Four Seasons Sydney
- Conference satchel and all Conference publications
- Conference lunches, morning and afternoon teas on Friday 8 and Saturday 9 August

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Dr Anusch Yazdani	QLD

Welcome

Dear Colleagues

The AGES Board is delighted to welcome you to a new and innovative IX Annual Pelvic Floor Symposium in Sydney. The meeting's theme, "Cleveland Clinic Downunder", will reflect the strengths of our world renowned and widely published international visitors Professor Mark Walters and Dr Marie Fidela Paraiso.

The program minimises didactic lectures to be replaced with the practical approach utilised at the Cleveland Clinic on a daily basis in the management of pelvic floor dysfunction. Topics will include: 'Cleveland Clinic – The way we do pelvic assessment', 'USI surgery the Cleveland Clinic way', 'Over Active Bladder - refractory cases' and many more practical lectures and videos.

A second innovation to the program will be the introduction of direct comparisons between common surgical devices. Industry nominated experts will debate and highlight why they utilise a certain instrument at hysterectomy, tape at continence surgery or graft at prolapse surgery.

A highlight of the meeting will be a video impact session evaluating: 'Hysterectomy at pelvic floor surgery', 'Alternatives to hysterectomy' and 'Impact of hysterectomy upon the pelvic floor'.

A session of the program will be devoted to covering important snapshots from the 3rd International Consultation of Incontinence (ICI) that has just been completed in Paris.

This innovative and practical program will be complimented by the conference dinner at award-winning Astral restaurant, with its modern French cuisine and panoramic views of the harbour and Sydney skyline.

We trust you all enjoy the IX Annual AGES Pelvic Floor Symposium in Sydney.

Christopher Maher
Conference Chairman

Harry Merkur
Co-Chairman

Robert Ford
Scientific Chairman

Alan Lam
AGES President

Conference Program

FRIDAY 8 AUGUST 2008

FOUR SEASONS HOTEL SYDNEY BALLROOM 2

0800 **Welcome** A Lam

0805 **PR&CRM Points – Pre-Questionnaire** R Ford

SESSION 1 *Sponsored by Stryker*

PATIENT ASSESSMENT

Chairs: H Merkur, J King

0820 **Cleveland Clinic – The way we do pelvic assessment** M Paraiso

0840 **Pelvic floor ultrasound** P Dietz

0855 **Assessment of bowel dysfunction** D Lubowski

0910 **Cleveland Clinic: Introduction and evaluation of new pelvic floor interventions** M Walters

0930 **Economics of incontinence** K Moore

0950 **Questions**

1000 Morning Tea and Trade Exhibition

SESSION 2

URINARY STRESS INCONTINENCE

Chairs: J Tsaltas, C Benness

1030 **USI surgery the Cleveland Clinic way** M Walters

1050 **The way we do slings and things** M Paraiso

1110 **Engineer's perspective of new tapes: The American Medical System way** T Erickson

Engineer's perspective of new tapes: The Johnson & Johnson Medical way M Frazer

1130 **Voiding problems post surgery** B Haylen

1145 **Panel discussion**

Practical, ethical, medico-legal issues relating to new pelvic floor interventions in Australia

P Dietz, B Farnsworth, B Haylen, K Moore, M Paraiso, R Bilston (Dept. Health & Ageing), M Flood (Therapeutic Goods Administration), A Maree (Johnson & Johnson Medical, Medical Director Aust/NZ), D Ross (Medical Technology Association of Australia)

1205 **Quiz the panel**

1215 Lunch and Trade Exhibitin

SESSION 3 *Sponsored by Arrow Pharmaceuticals & Hospira*

OVER ACTIVE BLADDER

Chairs: A Yazdani, B Farnsworth

1315 **Aetiology** K Moore

1330 **Bladder training and lifestyle changes for Over Active Bladder** D Edgar

1345 **Medical therapy** J King

1405 **Refractory cases: Botox and Interstim** M Paraiso

1425 **Challenging cases for the panel**

1445 Afternoon Tea and Trade Exhibition

SESSION 4

1515 **FREE COMMUNICATIONS**

FREE COMMUNICATIONS 1

Teale/Buchanan Room

Chairs: D Healy, J Tsaltas

Sponsored by Johnson & Johnson Medical

1515 **Is hysterectomy necessary in laparoscopic pelvic floor repair: results of a 2 year trial**

Rosen DMB, Shukla A, Cario GM, Carlton MA, Chou D

1525 **Long term outcomes after Prolift repair: An independent single surgeon study**

McEvoy M, Forbes A

1535 **Analysis of outcome and complications of Total Laparoscopic Hysterectomy (TLH), Laparoscopically Assisted Vaginal Hysterectomy (LAVH) and Laparoscopic Hysterectomy (LH) at Sydney West Advanced Pelvic Surgery (SWAPS) Unit from January 2001 to March2008**

Anpalagan A, Merkur H, Wang L

1545 **Video: Where exactly is the ureter during TLH, posterior paravaginal repair and anterior paravaginal repair**

Cario G, Georgiou C

1555 **4497 minimally invasive gynecologic surgeries: A review of complications in a single center**

Anderson J, Cario G, Rosen D, Chou D, Carlton M, Cooper M, Reid G, Hamani Y

FRIDAY 8 AUGUST 2008

1605 **Video: Laparoscopic repair of post total laparoscopic hysterectomy vesicovaginal fistula (PTLHVVF)**
Chou D, Aslan P, Cario G, Rosen D, Carlton M, Chong P, Anderson A, O'Neill A, Hamani Y

FREE COMMUNICATIONS 2
Ballroom 2
Chairs: M Cooper, K Karthigasu
Sponsored by American Medical Systems

1515 **Laparoscopic sacrocolpopexy: A series of 120 cases**
Hamani Y, Chou D, Cario G, Rosen D, Carlton M, Anderson J, O'Neill A

1525 **Video: Laparoscopic sacrocolpopexy - Lessons from 120 cases**
Chou D, Cario G, Rosen D, Carlton M, Anderson J, O'Neill A, Hamani Y

1535 **Transvaginal PROLIFT mesh repair for pelvic floor prolapse: Outcomes and complications in 114 cases**
Kaufman Y, Alturki H, Ford R, Lam A

1545 **Video: Understanding anatomy of sacral promontory: A must for laparoscopic sacrocolpopexy**
Chou D, Cario G, Rosen D, Carlton M, Anderson J, O'Neill A, Hamani Y

1555 **Pre and post-operative dynamic MRI in a patient with Perineum Descent Syndrome managed by laparoscopic mesh sacral hysterocolpoperineopexy**
Chou D, Johnston K, Cario G, Rosen D, Carlton M, Hamani Y, Anderson J, O'Neill A

1605 **Sacrospinous hysteropexy and anterior mesh: Isn't that a perfect match?**
Feiner B, Gietelink L, Maher C

FREE COMMUNICATIONS 3
Holmes Room
Chairs: F Behnia Willison, A Yazdani
Sponsored by Covidien

1515 **Vaginal mesh contraction: Definition, clinical presentation and management**
Feiner B, Maher C

1525 **A physiotherapy exercise program for women undergoing gynaecological surgery**
Frawley HC, Galea MP, Phillip BP, Bø K

1535 **The anatomic and functional outcomes of posterior compartment repair with re-attachment of the endopelvic fascia to the utero-sacral ligaments**
Ritossa M, Baauw J, Munday D, Gailani O

1545 **Long term ring pessary use for Pelvic Organ Prolapse**
Sarma S, Allen W, Parkin K, Karantanis E, Moore KH

1555 **Response to Resiniferatoxin confusing in idiopathic detrusor overactivity**
Bushati T, Moore KH, Allen W, Leek H, Woodman J, Burcher E

1605 **Pelvic floor repairs, laparoscopic and vaginal; Audit series 256 cases at Womancare, Wellington, NZ**
Iyengar V

SESSION 5 *Sponsored by American Medical Systems*

TAKE HOME MESSAGES - INTERNATIONAL COLLABORATION OF CONTINENCE PARIS 2008
Chairs: M McEvoy, B Haylen

1615 **Surgical management of USI** M Paraiso

1640 **Painful bladder syndrome** R Millard

1700 **Surgical management of prolapse** C Maher

1720 **Questions**

1730 **Close**

1900 FOR 1930 GALA DINNER ASTRAL RESTAURANT

Level 17 Hotel Tower, Star City
80 Pyrmont Street
Pyrmont 2009
Coach transfers to the restaurant depart from the Four Seasons Hotel Sydney, Harrington Street entrance at 1840

Conference Program

SATURDAY 9 AUGUST 2008

FOUR SEASONS HOTEL SYDNEY BALLROOM 2

SESSION 6 *Sponsored by Johnson & Johnson Medical*
HYSTERECTOMY AND PELVIC FLOOR
A VIDEO FEAST
Chairs: K Karthigasu, G Cario

0800 **Hysterectomy in Australia** M Cooper

0815 **Should the uterus be preserved ?** B Farnsworth

0830 **Subtotal hysterectomy: How and Why** A Lam

0850 **Hysterectomy of the future.**
Which approach: vaginal, laparoscopic or robotic ? M Paraiso

0910 **Which energy source for hysterectomy?**
Harmonic scalpel A Lam
Ligasure A Obermair

0930 **Hysterectomy the Cleveland Clinic way:**
Let the video roll
M Walters

0950 **Panel questions**

1000 Morning Tea and Trade Exhibition

SESSION 7 *Sponsored by Covidien*
HYSTERECTOMY
Chairs: D Healy, F Behnia-Willison

1030 **Perioperative bladder, bowel, lower urinary tract complications** G Cario

1045 **The role of hysterectomy in bladder, bowel and sexual function** J Manning

1100 **Hysterectomy in the obese** J Nicklin

1120 **Questions**

SESSION 8 *Sponsored by Stryker*
1130 **LIVE SURGERY** Transmitted direct from the Mater Hospital, Sydney
Prolift, Perigee/Apogee
Surgeons: A Lam, R Ford, T Erickson, M Frazer
Moderators: H Merkur, A Yazdani

1230 Lunch and Trade Exhibition

SESSION 9 *Sponsored by Stryker*
PELVIC ORGAN PROLAPSE
Chairs: C Maher, J Cook

1330 **Epidemiology** C Benness

1345 The **POPPY study** H Frawley

1400 **Basic science of grafts for POP** M Paraiso

1420 **Which graft to use?**
American Medical Systems perspective T Erickson
Which graft to use?
Johnson & Johnson Medical perspective M Frazer
Biological graft Surgisis L Lander

1450 **Challenging cases for the panel**

1515 Afternoon Tea and Trade Exhibition

SESSION 9 *Sponsored by Stryker*
continued
PELVIC ORGAN PROLAPSE
Chairs: C Maher, J Cook

1545 **POP surgery:**
The Cleveland Clinic way M Walters

1610 **Robotic and laparoscopic POP surgery:**
The way we do it M Paraiso

1630 **Occult stress urinary incontinence:**
What is it and what to do about it ? E Karantanis

1645 **Quiz the expert**

1700 **Presentation of AGES Awards and Travelling Fellowship** A Lam, K Karthigasu

1710 **Close**

AGES AWARDS FOR 2008

The AGES awards for 2008 are:

John Kerin award for Best Free Communication – *Sponsored by Covidien* AU$500

Best Video Presentation – *Sponsored by B Braun* AU$500

Best New Technology – *Sponsored by Karl Storz Endoscopy Australia* AU$500

Best Registrar Presentation – Sponsored *by Johnson & Johnson Medical* AU$500

All presentations will be assessed during the Meeting by an impartial judging panel.

The Awards will be presented at the completion of the program on Saturday 9 August.

Cleveland Clinic Main Campus - Aerial view

AGES Travelling Fellowship in 2008

The AGES/Covidien Travelling Fellowship for 2008 will also be presented at this time.

Cleveland Clinic

PR&CRM and CPD Points

The AGES Pelvic Floor Symposium and Workshop IX has been approved as RANZCOG Approved O&G Meetings and eligible Fellows of the College will earn points as follows:

- Full attendance:
  17 CPD points in the Meetings category
  (Attendance Friday 8 August 9 CPD points.
  Attendance Saturday 9 August 8 CPD points.)
- Completion of the Pre- and Post-Questionnaires:
  5 PR&CRM points
- The college approved Pre- and Post-Questionnaires are comprised of approximately 20 multiple choice questions from lectures given Friday 8 August and Saturday 9 August 2008.
- The Pre-Questionnaire is to be handed in at Morning Tea on Friday 8 August. The Post-Questionnaire is to be handed in at the close of the meeting, on Saturday 9 August. No exceptions can be made to these deadlines.

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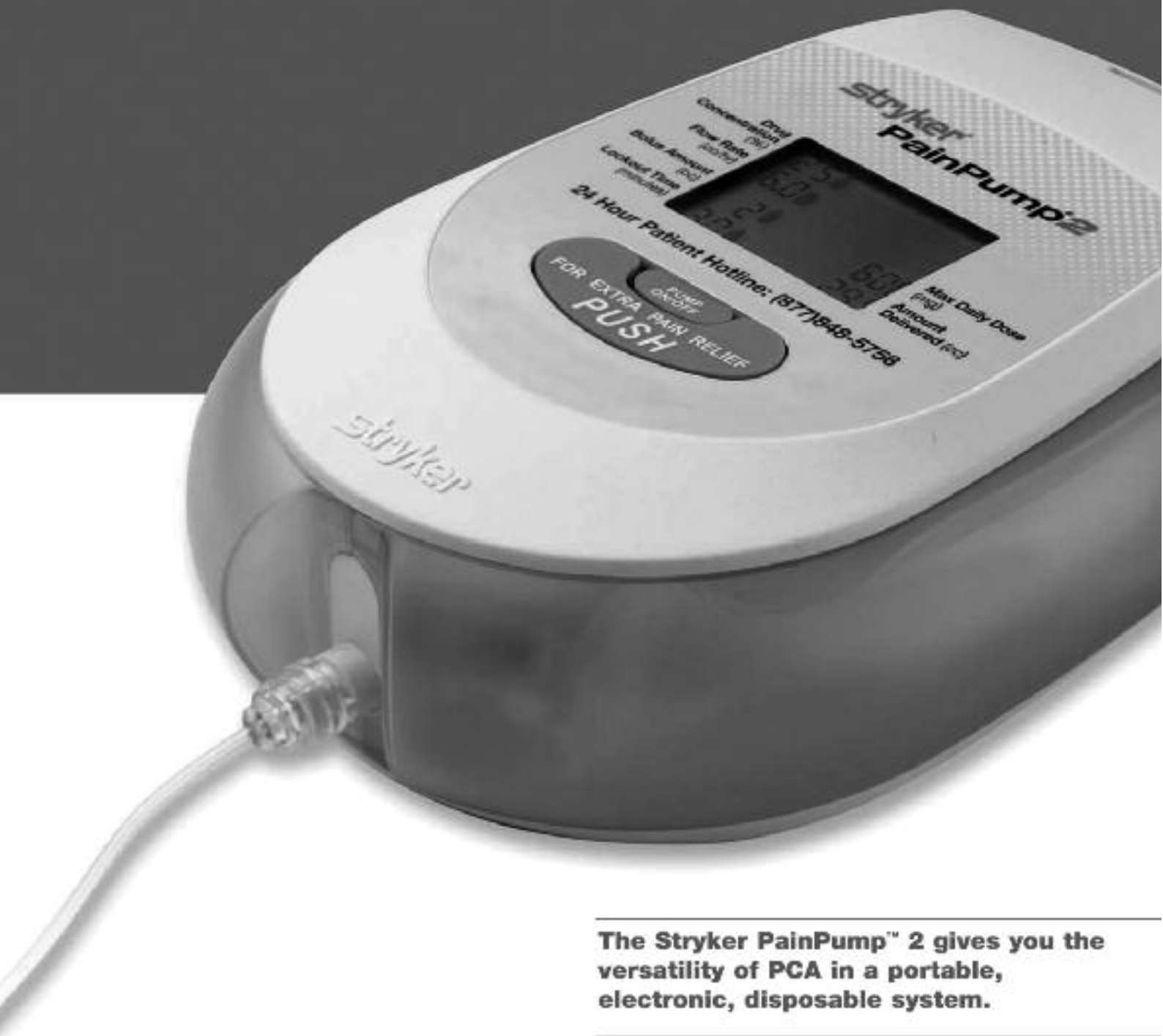

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Abstracts Friday 8 August

Cleveland Clinic – The way we do pelvic assessment

Friday 8 August / Session 1 / 0820-0840

Paraiso MFR

Objective: To describe our method of pelvic assessment at the Cleveland Clinic.

Methods: All of our new patients undergo a standard electronic medical record history, which includes detailed questions regarding lower urinary tract function, prolapse, bowel function, and sexual function. A detailed past medical and surgical history are obtained in addition to the obstetric and gynecologic history. All patients are examined in the supine position using the POPQ system. I routinely assess patient in a standing position especially if symptoms of prolapse are disproportion to examination findings in the supine position. A neurological examination is performed in addition to assessment of levator ani and anal sphincter muscle contractions. Most patients undergo urodynamic investigations if they are scheduled for surgery, Patients, who are deemed appropriate or who are participating in certain research trials, may undergo office cystometry, results to which the surgeon is blinded. Other conditions are assessed using different templates, such as vulvar conditions or chronic pelvic pain.

Results: Standardized pelvic floor consultation templates lead to similar assessment of all patients although styles may be different. These templates have been designed based on validated questionnaires and streamline our enrolment into various research trials.

Conclusions: Despite standardized assessment of patients, Cleveland Clinic urogynecologists offer various surgical interventions based on surgical expertise, patient desire, and randomized allocation, if applicable.

References:

1 Barber, M.D., et al., Psychometric evaluation of 2 comprehensive condition-specific quality of life instruments for women with pelvic floor disorders. Am J Obstet Gynecol, 2001. 185(6): p. 1388-95

2 Barber, M.D., N.L. Neubauer, and V. Klein-Olarte, Can we screen for pelvic organ prolapse without a physical examination in epidemiologic studies? Am J Obstet Gynecol, 2006

3 Bump RC, et al. The standardization of terminology of female pelvic organ prolapse and pelvic floor dysfunction. Am J Obstet Gynecol 1996; 175(1): 10-7

4 Brink, C.A., et al., A digital test for pelvic muscle strength in women with urinary incontinence. Nurs Res, 1994. 43(6): p. 352-6

Author affiliation: M. F. R. Paraiso. The Cleveland Clinic, Cleveland, Ohio, USA.

Pelvic floor ultrasound

Friday 8 August / Session 1 / 0840-0855

Dietz HP

3D/ 4D ultrasound has changed the practice of imaging in Obstetrics and Gynaecology in a number of ways. Perhaps the most significant impact has occurred in Urogynaecology, the subspecialty dealing with lower urinary tract dysfunction and female pelvic organ prolapse. Imaging in this field was, until recently, limited to the midsagittal plane and allowed assessment of prolapse, incontinence and related problems. Over the last few years we have learned to use 3D/ 4D ultrasound to visualize the levator ani, a structure that is difficult to assess in any but the axial plane. 3D and 4D imaging in the 'C' plane or rendered volumes in this plane enables direct visualization of the muscle, its function and anatomical integrity.

Being able to see the muscle easily, at minimal cost and at very limited discomfort to the patient has, within very few years, greatly advanced our understanding of the causes of prolapse. We have learned that impairment of the levator muscle, previously thought to be due to neuropathy, is in fact usually caused by direct trauma to the insertion of the muscle on the pelvic sidewall. The typical form of levator trauma, a unilateral avulsion of the

pubococcygeus muscle, is clearly related to childbirth and generally palpable as an asymmetrical loss of substance in the inferomedial portion of the muscle, at the site of its insertion on the pelvic sidewall. It is usually occult but may occasionally be observed directly in women after major vaginal tears. Bilateral defects are more difficult to palpate due to the lack of asymmetry, and less common.

Levator avulsion is common and associated with maternal age at first delivery- a worrying finding in view of the continuing trend towards delayed childbearing in western societies. It seems that the likelihood of major levator trauma at vaginal delivery triples during the reproductive years- from 15% at age 20 to over 45% at 40.

Levator avulsion is strongly associated with anterior and central compartment prolapse and likely represents the missing link (or a large part of the missing link) between childbirth and prolapse. The larger a defect is, both in width and depth, the more likely are symptoms and/ or signs of prolapse.

Major morphological abnormalities of the levator ani probably affect surgical outcomes. A recent study using MR imaging demonstrated that recurrence after anterior colporrhaphy was much more likely in women with levator trauma. From experience to date, it appears to the author that major levator trauma, i.e., avulsion of the puborectalis/ pubococcygeus from the pelvic sidewall, seems to be associated with early presentation and recurrent prolapse after surgical repair.

Clearly, it makes sense to identify such defects and, if possible, repair them, either in Labour Ward or at a later date. More importantly, the identification of the 'missing link' between childbirth and prolapse will allow us to develop strategies for predicting and preventing such trauma. As a large proportion of female pelvic organ prolapse seems to be attributable to avulsion injury and as over 200.000 surgical procedures are undertaken for this indication per year in the US alone, prevention should be an issue of interest to public health strategists. The next ten years will see very substantial progress in this field, most of it made possible only by 3D/ 4D ultrasound imaging technology.

Further reading: Dietz HP Pelvic Floor Ultrasound. Springer, London 2008

Author affiliation: H. P. Dietz. Nepean Clinical School, University of Sydney, Sydney, NSW, Australia.

Assessment of bowel dysfunction

Friday 8 August / Session 1 / 0855-0910

Lubowski DZ

Colonic and pelvic floor abnormalities leading to faecal incontinence are often complex in their nature and require careful assessment prior to treatment of these conditions. Since the population prevalence of fecal incontinence amongst multiparous women is10-12%, there is now a large cohort of women requiring assessment and intervention. Choosing biofeedback or one of a number of surgical procedures can only be optimized by assessing the patient in the context of physiological test results. Since there are now a wide variety of tests available, it is essential to select those most appropriate in each case, rather than subjecting the patient to a "battery" of screening tests, some of which may be poorly tolerated hence giving misleading results.

Anorectal manometry: Measurement of pressure provides information about strength of the internal and external sphincters. Although most defects are obvious clinically, subtle defects in these muscles only detectable by physiological testing may lead to alterations in continence.

Electromyography: Motor and sensory nerve conduction testing provides information about stretch-related injury to the pudendal nerves. Recent information has shown poor correlation on pudendal nerve testing with outcome of surgical treatment of incontinence, but sensory nerve conduction testing may be more accurate.

Endoanal ultrasound: Ultrasound has proved an extremely useful technique in detecting internal and external sphincter injuries, particularly after vaginal delivery. However it has now become apparent that many sphincter defects are not clinically relevant. Up to 40% of multiparous women have detectable external sphincter defects on ultrasound but these are only clinically relevant in a small proportion of patients. The important clinical issue is now how best to determine which of these sphincter defects is significant in order to best select patients for surgical treatment. This has become particularly relevant with the introduction of sacral nerve stimulation, which is now widely used for neurogenic faecal incontinence, but is also appropriate for many patients with sphincter defects which are not clinically significant. Ultrasound must be very carefully interpreted in order not to under- or over-call the significance of an ultrasound sphincter defect.

Defecography: Defecography has been widely misinterpreted and misused over the last two decades.

Intussusception of the rectum, rectocele, pelvic floor descent and other anatomical features are found in over half of asymptomatic multiparous women and therefore clearly are often of no clinical significance. It is not surprising therefore that many papers report poor results of surgery after using these radiological parameters to select patients. On the other hand, judicious use of defecography can provide useful information when put into its correct clinical context.

Colonic manometry: Colonic motility is central to normal defaecation, which is an act of colonic emptying, not just rectal emptying. Obstructed defaecation is frequently due to an abnormality of colonic motility in addition to a pelvic floor abnormality. Assessment of colonic motility has recently become a very useful additional tool to select some patients with constipation or obstructed defaecation for sacral nerve stimulation. Normal high amplitude propagating pressure waves are needed for normal colonic propulsion and for defaecation, and absence of these HAP waves causes a variety of clinical patterns including obstructed defaecation.

Author affiliation: D. Z. Lubowski. Assoc Professor, Colorectal Surgeon. University of NSW, Sydney, NSW, Australia.

Cleveland Clinic: Introduction and evaluation of new pelvic floor interventions

Friday 8 August / Session 1 / 0910-0930

Walters MD

The Cleveland Clinic has pioneered many innovative surgical interventions throughout the years especially related to cardiac surgery, orthopedic surgery, neurosurgery, and laparoscopic surgery. In gynecology, our approach to surgical innovation has been to develop new techniques or to carefully study the techniques of pioneer surgeons worldwide, implement the most promising surgical techniques into our practice, progress through the surgical learning curve, and follow patients on study protocols. Assessments are first for complications and then for early and late surgical outcomes. Through our Minimally Invasive Surgery Center in the 1990's we, along with the Departments of Urology, Colorectal Surgery, Cardiac Surgery and others, pushed the limits of laparoscopic techniques to understand the role of this type of surgery in each specialty. For a number of reasons, advanced laparoscopy has not become as widespread among general Obstetricians and Gynecologists as we had predicted, but it still remains an important part of our specialty's surgical armamentarium. Regarding newer surgeries in gynecology, we are currently most interested in studying the role of robotic surgery and the role of vaginal meshes for prolapse surgery. We are carefully addressing complications, outcomes, and costs, and trying to understand how they might help or hinder the surgeon and patient. The Cleveland Clinic also has hosted several large symposia on the Ethics of Innovation and ethical issues related to industry collaboration. A few of the most salient features of the symposia will be presented.

Author affiliation: M. D. Walters, MD, Professor and Vice Chairman of Gynecology, Cleveland Clinic, Cleveland, Ohio, USA.

Update re: WHO Consensus Conference, Paris The cost of incontinence

Friday 8 August / Session 1 / 0930-0950

Moore K

At the fourth International Consensus on Incontinence Conference of the WHO (Paris, July 2008) the costs of urinary and faecal incontinence were considered. In previous years, most of the publications reviewed comprised simple Cost of Illness studies, e.g. tabulation of the personal and treatment costs of these disorders. However clinicians have become increasingly aware that we need to demonstrate "Value for money spent" i.e. that the input dollars result in both a cure/reduction of incontinence, but also an increase in the patients' quality of life (QOL).

The most desirable QOL test is the Quality Adjusted Life Years, or QALY, because this common yardstick can be used to compare the results of our treatments with those for other conditions (Cost Utility Analysis). Only in this way can we justify continued expense of government or health funds monies on the treatments that we recommend for our patients.

Also at this year's conference, greater emphasis is being put upon the cost benefits being judged over time. For example, collagen injections and Botox injections have a known decay in success over time, so their net result must be judged in light of this. For the first time, studies of the burden of disease in the workplace have also been published, with important economic consequences.

Author affiliation: K. Moore. The Pelvic Floor Unit, St George Hospital, University of NSW, Sydney, NSW, Australia.

Urinary Stress Incontinence surgery: The Cleveland Clinic way

Friday 8 August / Session 2 / 1030-1050

Walters MD

Surgery for stress urinary incontinence at the Cleveland Clinic over the last 20 years has followed an evolution based on innovations and available scientific evidence as they become available. Since 1990, the dominant surgeries have evolved from open Burch, vaginal wall slings, laparoscopic Burch, TVT procedure, transobturator slings. Within our Minimally Invasive Surgery Center we developed a standard technique of laparoscopic Burch that was very popular and effective. This was slowly replaced by tension-free vaginal tape after our randomized trial showed TVT to be clearly more effective for urodynamic stress incontinence than laparoscopic Burch. This study was followed by a recent randomized trial of TVT vs. transobturator sling in which we found the transobturator sling to be not inferior to TVT but with fewer irritative voiding symptoms, less postoperative anticholingeric medication usage, and fewer complications.

Currently we do a mixture of the most proven surgeries including a few Burch colposuspensions, TVT procedures for recurrent incontinence, and transobturator slings for primary stress incontinence. We believe that our main contribution to this subject has been in the critical analysis and randomized comparison of the important procedures.

Suggested Readings:

1 Muir TW, Tulikangas PK, Paraiso MF, Walters MD: The relationship of tension-free vaginal tape insertion to the vascular anatomy of the retropubic space and anterior abdominal wall. Obstet Gynecol 2003; 101:933-6

2 Paraiso MFR, Walters MD, Karram MM, Barber MD. Laparoscopic Burch colposuspension versus tension-free vaginal tape: a randomized trial. Obstet Gynecol 2004; 104:1249-58

3 Barber MD, Kleeman S, Karram MM, Paraiso MF, Walters MD, Vasavada S, Ellerkmann M. A multi-center randomized trial comparing the Monarc transobturator tape with the tension-free vaginal tape (TVT) for the surgical treatment of stress urinary incontinence. Obstet Gynecol 2008; 111:611-21

Author Affiliation: M. D. Walters, MD, Professor and Vice Chairman of Gynecology, Cleveland Clinic, Cleveland Ohio, USA.

The way we do slings and things

Friday 8 August / Session 2 / 1050-1110

Paraiso MFR

Objective: To describe the Cleveland Clinic way of doing slings and other things.

Methods: The Urogynecology staff, Female Urology staff, and current graduating fellows were pooled regarding the way we all do slings and "things": choice of sling or other incontinence procedure for various indications, method of tensioning, and postoperative bladder drainage.

Results: There is no consensus on types of slings utilized for various indications but the vast majority preferred transobturator slings for primary USI with LPP > 60 cm H2O. Retropubic midurethral slings were used for recurrent USI and LPP for < 60 cm H2O. Pubovaginal slings ranged from 0-5 per year for the staff with autologous fascia the primary choice for sling material. Short-term Foley catheter drainage was the most common form of postoperative bladder management if a patient could not void prior to discharge.

Conclusions: Surgical management of stress incontinence varies amongst Cleveland Clinic staff. Most physicians prefer the use of transobturator and retropubic midurethral slings. Use of fascial slings and mini-slings is the least common.

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3 Stanford EJ, Paraiso MFR. A Comprehensive Review of Suburethral Sling Procedure Complications. J Minimally Invasive Gynecol 2008; 15(2):132-45

Author affiliation: M. F. R. Paraiso. The Cleveland Clinic, Cleveland, Ohio, USA.

Engineer's perspective on tapes: The American Medical Systems way MiniArc™ single incision sling system: The elegant next step in minimally invasive continence procedures

Friday 8 August / Session 2 / 1110-1120

Erickson T

Over 100 techniques for stress incontinence have been reported with varied success rates. The "Holy Grail" of management for incontinence remains elusive. However the quest continues with three primary objectives:

1 Safe
2 Efficacious
3 Minimally Invasive.

The significant progress over the past 10 years has focused on a better understanding of mid-urethral support in the continence mechanism. Procedures beginning with retropubic TVT have created a minimally invasive world with a continued advance towards increased safety with less incisions, shorter distance traveled with needles and shorter OR and recovery times.

This discussion will review the procedures and data for the movement from a retropubic approach to the transobturator to finally single incision placement of a sling into the obturator internus. Video will be provided to specifically demonstrate the MiniArc sling.

Author affiliation: T. B. Erickson. Chairman Board Mountain View Hospital. CEO Rosemark WomenCare Specialists. Idaho Falls, Idaho, USA.

Engineer's perspective: New tapes the Johnson & Johnson Medical way

Friday 8 August / Session 2 / 1120-1130

Frazer M

The TVT-Secur (Ethicon, Sommerville, NJ,USA) procedure is a minimally invasive synthetic tape used in the treatment of female stress urinary incontinence. The minimally invasive nature of this approach purportedly minimizes the risk of visceral and vascular injury as well as minimizing post-operative pain. However, reports pertaining to the procedure's short-term outcomes have yielded mixed results.

The rationale and design of the TVT-S will be discussed and recent literature on the device will be critically discussed. The Australian experience will be highlighted and lessons learned will be discussed from that perspective.

Author affiliation: M. Frazer. Specialist urogynaecologist. Gold Coast, Queensland, Australia.

Voiding problems post surgery

Friday 8 August / Session 2 / 1130-1145

Haylen B, Lee J, Yang V

Postoperative voiding dysfunction is commonly seen in women undergoing a variety of pelvic reconstructive and anti-incontinence surgery. It is defined as abnormally slow and/or incomplete bladder emptying. In the extreme, there is little or no urine flow and urinary retention.

Keys to management of postoperative voiding dysfunction are: (A) identifying patients at risk pre-operatively; (B) avoiding surgical techniques that might exacerbate existing voiding dysfunction; (C) education of patients regarding the potential for voiding dysfunction postoperatively; (D) having a well-structured plan of management to deal with the issue.

Around 40% women presenting with symptoms of pelvic floor dysfunction will have some degree of voiding dysfunction. Validated urodynamic markers for preoperative voiding dysfunction are a urine flow rate under 10th centile Liverpool Nomogram chart and/or a postvoid residual (PVR) over 30mls (immediate measurement by ultrasound). Catheterisation techniques to measure PVRs are far less accurate and will generally give higher PVR

readings. This is due to the diuresis between voiding and PVR measurement (often 5-10 minutes or more). Where these screening tests have identified voiding dysfunction, pressure/flow studies (voiding cystometry) will determine whether this is due to (a) hypotonia (low detrusor pressure/ slow urine flow); (b) bladder outflow obstruction (high detrusor pressure/ slow urine flow); (c) prolapse effect (low or normal pressure/ normal urine flow).

There is a significant association pre-operatively between prolapse and voiding dysfunction such that prolapse surgery alone can be expected to improve voiding function. However, a variety of perioperative factors might account for temporary voiding dysfunction. The potential for early urinary retention appears to be greater in women undergoing surgery involving laparotomy, in particular with more extensive pelvic dissection.

Anti-incontinence surgery provides increased risk for postoperative voiding dysfunction due to differing degrees of obstruction to urine flow produced by the operation and the differing ability of the detrusor muscle to overcome this obstruction. Poor detrusor function and an average urine flow rate under 10th centile have been cited as significant risk factors for postoperative voiding dysfunction.

Opinions regarding the need for catheterization following prolapse and anti-incontinence surgery alone will vary between clinicians, though most would agree that catherisation is desirable following concomitant prolapse and anti-incontinence surgery. In those not catheterized following surgery of any type, monitoring should be close with accurate PVRs obtained. Reaction to urinary retention should be swift, as overdistension will further impair bladder function. A knowledge of the efficacy of different catheters will assist and improve protocols for trials of voiding.

Most postoperative voiding dysfunction is mild and transient. As a chronic PVR of only 30mls can lead to a significant increase in the prevalence of urinary tract infections (UTI), prophylactic antibiotics or antiseptics should be a consideration. For higher postoperative PVRs, prolonged catheterization/ PVR monitoring is warranted if restoration of normal voiding function is considered likely.

In more severe and prolonged voiding dysfunction following synthetic tape anti-incontinence procedures, management options include: (a) downward traction on the tape (within 2 weeks of surgery); (b) posterior division of tape (6 weeks to longer term). Continence rates following (b) are generally reported to be still satisfactory. Surgical management of voiding dysfunction after other incontinence procedures is more complex. Cystoscopy and urethral dilatation might be a consideration if urethral stenosis is a factor. Pharmacological agents to treat hypotonia are generally ineffective and produce undesirable side-effects.

Author affiliation: B. Haylen. St Vincent's Clinic, Sydney, NSW, Australia.

Panel discussion: Practical, ethical, and medico-legal issues relating to new pelvic floor interventions in Australia

Friday 8 August / Session 2 / 1145-1205

Paraiso MFR

I would like to share an editorial regarding the difficulty in designing surgical trials that incorporate mesh. This should be out in the next JMIG issue. I wrote this during the period of time that we were trying to design a prospective trial incorporating use of synthetic mesh by vaginal route in one arm.

References:

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Author affiliation: M. F. R. Paraiso. The Cleveland Clinic, Cleveland, Ohio, USA.

The aetiology of idiopathic detrusor & veractivity: An update

Friday 8 August / Session 3 / 1315-1330

Moore K

In the 1970's detrusor overactivity was regarded as a psychosomatic condition. At that time our ability to investigate the structure, morphology, receptor location or function of the detrusor muscle and the urothelium was severely limited. In the 1980's and 90's scientists became able to conduct

immunohistochemistry and micro – organ bath studies of the detrusor. Gradually, disturbances of neuropeptides and nerve distribution patterns were found in patients with detrusor overactivity.

In the exciting era of molecular biology, we are now able to study the distribution of specific receptor subtypes in small biopsy samples. Changes in purinergic, tachykinin and muscarimic receptors have been found in the disease state, which shed new light on aetiology.

Even more important, in the last five years we have realised that the urothelium is not just an inert barrier, but a rich metabolically active layer of the bladder. The urothelial cells contain their own receptors, which appear to send signals to the detrusor. These cells also respond to stimuli such as stretch and changes in pH, opening up a whole new vista of investigation into the disease state. It is likely that in the next decade, drugs aside from muscarimic antagonists will become available for therapy.

Author affiliation: K. Moore. The Pelvic Floor Unit, St George Hospital, University of NSW, Sydney, NSW, Australia.

Bladder training

Friday 8 August / Session 3 / 1330-1345

Edgar D

This presentation discusses bladder training for women with overactive bladder syndrome. It focuses on the practical aspects from a nurse continence advisor's perspective.

Bladder training is a non invasive therapy initiated at a community level for women (and men) who suffer from an overactive bladder. It is taught by a nurse continence advisor or physiotherapist. The aim of bladder training is to increase the interval between voids until a suitable pattern has been established and women feel they have more control over the bladder.

Initial assessment entails exclusion of other pathology causing or exacerbating irritative lower urinary tract symptoms and a 3 day bladder diary documenting fluid intake, urinary output and leakage episodes. Treatment is individualised and involves a significant educational / information component. Techniques include lifestyle changes (some more evidence based than others) and deferment techniques. Bladder training can be augmented with anti-cholinergic therapy but a successful long term outcome requires compliance and motivation with the bladder training program.

Author affiliation: D. Edgar. Continence Foundation of Australia. Honorary member of Association of Continence Advisors NSW Australian Nurse for Continence.

Over Active Bladder – Medical therapy

Friday 8 August / Session 3 / 1345-1405

King J

A review of medical treatment, old and new, for the overactive bladder - where do we start, which is best? Plus a few hints on how you might avoid the problem.

Author affiliation: J.King. Urogynaecologist, Pelvic Floor Unit, Westmead Hospital, NSW, Australia.

OAB – Refractory cases: Botox and Interstim

Friday 8 August / Session 3 / 1405-1425

Paraiso MFR

Objective: To present difficult cases of refractory overactive bladder.

Methods: Five difficult (and memorable) cases of refractory OAB were reviewed. The management and outcomes are highlighted in this presentation: JM, MC, LK, FTN, and CF.

Results: Three of the five patients underwent both methods of neuromodulation in varying order. Three of the patients have responded to therapy but remain works in progress.

Conclusions: Refractory OAB is a difficult problem to manage.

References:

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Author affiliation: M. F. R. Paraiso. The Cleveland Clinic, Cleveland, Ohio, USA.

Surgical management of USI

Friday 8 August / Session 5 / 1615-1640

Paraiso MFR

Objective: To summarize surgical management of USI in 2008.

Methods: The data for "gold standard" surgical procedures especially RCTs for USI were reviewed.

Results: The Burch colposuspension, fascial suburethral sling procedure, and midurethral sling have stood the test of time. The transobturator sling has been shown to be non-inferior to the retropubic midurethral sling but are thought to be less effective for instrinsic sphincteric deficiency. Although prospective trials are underway, recently introduced mini-slings and prepubic slings have no comparative or long-term data.

Conclusions: Surgical management of USI has been revolutionized by the introduction of midurethral sling procedures. However, there is still a role for retropubic colposuspension and pubovaginal fascial slings.

References:

1 Smith T, Daneshgari F, Dmochowski R, Miller K, Paraiso M, Rovner E. Surgical Treatment of Incontinence in Women. In Incontinence from the 3rd International Consulation on Incontinence, 3rd Edition. Plymouth Distributors Ltd, Plymouth, United Kingdom 2005. Look for 2009 4th edition

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Author affiliation: M. F. R. Paraiso. The Cleveland Clinic, Cleveland, Ohio, USA.

The painful bladder syndrome

Friday 8 August / Session 5 / 1640-1700

Millard RJ

ICS defines the painful bladder syndrome (PBS) as the complaint of suprapubic pain related to bladder filling, accompanied by other symptoms such as increased daytime and night-time frequency, in the absence of proven urinary infection or other obvious pathology. Although similar, PBS is not synonymous with interstitial cystitis (IC). It follows that the diagnosis is reached by a process of exclusion, firstly of UTI, and then of other pathology which can give rise to pain in the bladder or pelvis.

The presentation will discuss the afferent bladder pathways, and the difference between sensory and motor pain. The diagnostic pathway, from history,

examination and further investigations will be discussed, in the context of the differential diagnosis and myriad of painful conditions that need exclusion. Cystoscopy findings will be illustrated with particular reference to equipment and methodology.

The diagnostic criteria for IC have been set down by the NIDDK. IC is a chronic condition characterised by pain on bladder filling, relieved by voiding, in association with day and night frequency but not incontinence. Temporary relief of the symptoms can be achieved by hydrodistention of the bladder. The classical cystoscopic appearances will be illustrated and some of the controversies will be explored. The treatment options for established IC, including oral agents, intravesical agents, hydrodistention and diathermy to any Hunner's ulcers which may be present, and, when all else fails, replacement cystoplasty or urinary diversion will be discussed.

When the urine is clear and cystoscopy demonstrates no abnormality in the bladder, or urethra (or prostate), the patient needs referral to a colleague interested in searching for other causes of pelvic pain, in the pelvic floor, rectum, gynaecologic organs, pelvis or spine, rather than to the pain clinic.

Author affiliation: R. J. Millard, University of NSW, Sydney, NSW, Australia.

Surgical management of anterior compartment prolapse

Friday 8 August / Session 5 / 1700-1720

Maher C

The surgical management of anterior vaginal prolapse remains controversial. In reconstructive gynecology surgery Level 1 1,2evidence suggest the combined use of abdominal sacral colpopexy with or without retropubic colposuspension or paravaginal repair is superior to the vaginal approach including sacrospinous colpopexy and anterior colporrhaphy with or without vaginal paravaginal repair in the management of anterior vaginal prolapse (Grade B recommendation).

Majority Level 1 and 2 3,4 evidence suggest the use of absorbable synthetic mesh overlay offers a superior anatomical outcome for anterior wall prolapse as compared to anterior colporrhaphy alone, although the evidence is divided5. Majority Level 1 evidence suggest that polyprolene mesh overlay has a superior anatomical outcome as compared to traditional anterior colporrhaphy. These findings need to tempered with Level 2 and 3 evidence suggesting significant functional complications are associated with the employment of non-absorbable meshes at the time vaginal reconstructive surgery4,6,7. There is a significant paucity of data available on efficacy of the commercially available kit armed polypropelene meshes for anterior compartment prolapse. A single well designed RCT and level 2 evidence suggest the porcine dermis graft overlay to be more effective than AC alone. A significant body of Level 2 and 3 evidence has not been able to reproduce these results. A single RCT and level 3 evidence suggest little benefit is be derived from cadaveric fascia lata or dermis as a graft material.

On the literature available absorbable and non-absorbable synthetic meshes utilised in the repair of anterior compartment prolapse reduces the risk of recurrent anterior compartment prolapse as compared to traditional AC. The place of permanent synthetic meshes will be determined by functional outcomes, the ability to treat complications such as mesh contracture and the success or otherwise of treating recurrent prolapse after a permanent mesh has failed.

Level 2 evidence suggest that in women with stress urinary incontinence and cystocele the addition of slings to the anterior colporrhaphy offers a superior anatomical outcome as compared to anterior colporrhaphy alone or in combination with other continence surgery3,8. Grade C recommendation is made as this evidence arises from one institution and one sample of women reported twice.

Significant further research is required into the surgical management of anterior vaginal wall prolapse including but not limited to:

1 Functional outcomes following synthetic meshes for anterior compartment prolapse.
2 Management of mesh complications especially mesh contracture associated with armed meshes
3 Management of recurrent anterior compartment prolapse following failed permanent mesh.
4 Safety and efficacy of armed meshes in anterior compartment prolapse
5 Anterior colporrhaphy with and without synthetic or biological grafts
6 Vaginal paravaginal repair and abdominal (open or laparoscopic) paravaginal repair
7 New synthetic and biological graft development
8 Use of stem cells to produce quality tissue to be utilised to reconstructive surgery

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of pelvic support defects: a prospective randomized study with long-term outcome evaluation. Am J Obstet Gynecol 1996;175(6):1418-21

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Author affiliation: C. Maher. University of Queensland. Wesley Urogynaecology. Queensland, Australia.

Abstracts Free Communications 1

Is hysterectomy necessary in laparoscopic pelvic floor repair: results of a 2 year trial

Friday 8 August / Session 4 / Free Communications 1 / 1515-1525

Rosen DMB, Shukla A, Cario GM, Carlton MA, Chou D

Objectives: To determine the effect of hysterectomy on laparoscopic pelvic floor repair

Secondary objective: 24-month follow-up of laparoscopic pelvic floor repair with and without associated hysterectomy

Methods: 31 patients in each group at a Tertiary centre for laparoscopic surgery allocated to pelvic floor repair depending on prolapse symptoms with or without hysterectomy. Pre-op, intra-op and postoperative data collected prospectively up to 24 months following surgery.

Results: Laparoscopic pelvic floor repair corrected pelvic organ prolapse as assessed by the POP-q system in 88% of patients at 12 months in the group with hysterectomy and 81% in the group without hysterectomy, and 78% at 2 years in both groups. No difference existed in complication or postoperative symptoms between the two groups. The difference in surgical outcomes at 12 months is reflected in the extra patients in the group without hysterectomy who required surgery for isolated cervical elongation (4/32)

Conclusion: Laparoscopic pelvic floor repair is an effective surgical technique for the correction of female pelvic organ prolapse. Patients should be advised that if hysterectomy is not part of the original surgery, a significant percentage may require repeat surgery for cervical elongation.

Author affiliation: D. M. B. Rosen, A. Shukla, G. M. Cario, M. A. Carlton, D. Chou. Sydney Women's Endosurgery Centre, St George Hospital, Sydney, Australia.

Long term outcomes after Prolift repair: An independent single surgeon study

Friday 8 August / Session 4 / Free Communications 1 / 1525-1535

McEvoy M, Forbes A

Objective: Outcomes after mesh kits are difficult to quantify and may be biased by industry alliances.

Methods: 50 consecutive Caucasian patients with severe prolapse presenting to a private metropolitan Australian gynaecological practice were considered suitable for a Mesh repair with Prolift.

Preoperatively a King's College P-QOL questionnaire and POP-Q assessment was made. These were repeated postoperatively at 3, 12, 8, 24 and 30 months together with a new PROVAS (PROlapse Visual Analogue Scale).

Results: Total POP-Q fell from +9.3+/- 4.09 to – 9.5 +/-4.3, indicating good anatomical results from surgery. 4% had a recurrence of prolapse requiring further surgery (sacral colpopexy). There were no serious complications due to the mesh.

Length of follow up is longer than any other Australian study.

46% were sexually active post operatively by 3 months and 75% by 6 months 25% did not have a partner or a potent partner. 4% had female and/or male dyspareunia. These were not all apparent until 12 months. Mesh exposition was noted in 8% with 50% of these being symptomatic. 4% had mesh excision with resolution of dyspareunia

Conclusions: High degree of improvement in anatomical parameters, quality of life, bowel, sexual and bladder function was noted. Low rates of dyspareunia and mesh exposition occurred. Prolift repair has similar rates of complication but a lower prolapse recurrence rate than standard repair. Long term sexual function was not able to be accurately assessed until more than 12 months post operatively.

The authors have no conflicts of interest and are self funded.

Author affiliation: M. McEvoy, A. Forbes. North Adelaide, South Australia, Australia.

Analysis of outcome and complications of Total Laparoscopic Hysterectomy (TLH), Laparoscopically Assisted Vaginal Hysterectomy (LAVH) and Laparoscopic Hysterectomy (LH) at Sydney West Advanced Pelvic Surgery (SWAPS) Unit from January 2001 to March 2008

Friday 8 August / Session 4 / Free Communications 1 / 1535-1545

Anpalagan A, Merkur H, Wang L

Aim: There are a variety of techniques involved in the performance of laparoscopic hysterectomy. The aim of this study is to analyse, compare and determine the outcomes and complications seen in the SWAPS unit.

Methods: A systematic analysis of prospectively collected data from five different hospitals performed by eight laparoscopic surgeons in SWAPS from January 2001 to March 2008.

Results: There were 807LAVH/TLH/LHs performed during this time. Of these 549 (68.0%) were LAVH, 220 (27.3%) were TLH and 38 (4.7%) were LH. An increasing trend towards TLH compared with LAVH and LH was noted. The overall conversion rate was 6.9% (56/807), the rate however is decreasing over the years. There were 12 (1.5%) cystotomies reported. There were 9 (1.1%) patients needing blood transfusion. There were two (0.25%) bowel injuries reported without any sequelae. There was one (0.1%) inferior epigastric artery injury and one (0.1%) mortality reported in this series.

Conclusion: Our unit is increasingly moving towards TLH rather than LAVH/LH over the years. The conversion rate in our unit is improving over time. Urinary tract injury in our series is slightly higher than the reported data with out any long term morbidity. Our bowel injury rate is comparable to the other units. The blood transfusion rate is about 1% with one major vascular injury occurring in our series. The mortality was due to failure in recognising intra abdominal bleeding on the post operative day evening.

Author affiliation: A. Anpalagan, H. Merkur, L. Wang. Sydney West Advanced Pelvic Surgery Unit (SWAPS). Sydney West Area Health Service NSW, Australia.

Video
Where exactly is the ureter during TLH, posterior paravaginal repair and anterior paravaginal repair?

Friday 8 August / Session 4 / Free Communications 1 / 1545-1555

Cario G, Georgiou C

Gynaecological surgery has traditionally been taught by procedural recipes with very fixed steps to provide safety rather than on an anatomical basis. Gynaecologists generally become very nervous when they stray away from the midline. Now that we perform Laparoscopic pelvic floor reconstruction we need to be very aware of the surgical anatomy of the pelvic sidewalls, the posterior paravaginal and anterior paravaginal spaces, and how they relate to each other. In particular we need to know exactly where the ureter is during dissection and suturing.

We present a video showing the course of the ureter during a Laparoscopic Global Pelvic Floor reconstruction.

Author affiliation: Sydney Women's Endosurgery Centre. St George Private Hospital, Kogarah, NSW, Australia.

4497 minimally invasive gynecologic surgeries: A review of complications in a single center

Friday 8 August / Session 4 / Free Communications 1 / 1555-1605

Anderson J, Cario G, Rosen D, Chou D, Carlton M, Cooper M, Reid G, Hamani Y

Objective: To review the total number of surgeries performed in a single endoscopic center. To review the incidence of associated complications.

Methods: A multi-center chart review to identify surgeries performed by six advanced laparoscopic surgeons over a 3-year period (1/1/2005 - 12/31/2007). Surgical cases were performed by six surgeons at 5 hospitals in Sydney, New South Wales. A total of 4497 cases were performed, analyzed, and characterized.

Results: A total of 4497 cases were performed, 3778 (84%) of those were major gynecologic laparoscopy cases and 719 (16%) of those were minor laparoscopic and hysteroscopic cases. The total 3778 major laparoscopic cases were comprised of the following: 809 (21%) hysterectomies, 819 (22%) pelvic floor repairs and Burch colposuspensions, 116 (3%) myomectomies, 1200 (32%) excisions of grade I-IV endometriosis, 520 (14%) adnexal surgeries, 243 (6%) adhesiolysis, and 71 (2%) miscellaneous surgeries. Of the total 4497 surgeries, 30 major complications occurred, which yields a complication rate of 0.6%. There were 11 (0.2%) intra-operative hemorrhages, 11 (0.2%) ureter and bladder injuries, and 8 (0.1%) bowel injuries. There were no major vessel injuries. The most common peri-operative morbidity was transfusion (28 cases [0.6%]), and the second-most common was venous thromboembolism (4 cases [0.09%]). There were 8 (0.1%) conversions to laparotomy, 2 for managing complications and 6 for technical reasons.

Conclusions: There were a large number of advanced laparoscopic gynecologic procedures performed, but the complication rate and conversion to laparotomy remain low. Surgeries that have been traditionally laparotomy operations (Burch colposuspension, pelvic floor repair, and hysterectomy) can be feasibly performed laparoscopically with a very low complication rate.

Author affiliation: Sydney Women's Endosurgery Centre. St George Private Hospital, Kogarah, NSW, Australia.

Video
Laparoscopic repair of post total laparoscopic hysterectomy vesicovaginal fistula (PTLHVVF)

Friday 8 August / Session 4 / Free Communications 1 / 1605-1615

Chou D, Aslan P, Cario G, Rosen D, Carlton M, Chong P, Anderson A, O'Neill A, Hamani Y

Introduction: Post hysterectomy VVF is fortunately an uncommon occurrence as it is one of the most distressing complications. The continuous involuntary loss of urine into the vaginal can have profound effect on the patient's emotional well-being, particular as the repair is recommended to be carried out 2 months after the initial operation. Repairs have traditionally been performed either abdominally or vaginally. A video presentation of laparoscopic repair of a PTLHVVF will be presented.

Case Report: A 38 y o lady with severe endometriosis underwent TLH and excision of endometriosis eight months prior, at a different unit. Postoperative she had recurrent UTI and pelvic pain and underwent laparoscopic left salpingo-oophorectomy two months later. Cystoscopy at the time revealed a 1cm necrotic ulcer. IDC was placed for 14 days and following its removal she developed urinary leakage per vagina. Investigations confirmed the presence of a small VVF. Intraoperatively, fistula openings were identified by vaginoscopy and cystoscopy. Ureters and the fistula tract were catheterised. Laparoscopically, adhesiolysis was performed to normalise the anatomy from her previous surgery and POD endometriosis. In contrast to the initial cystotomy in standard urological approach to VVF, we found placement of finger in the vagina allowed very precise location of the fistula tract (by palpation of the catheter) and improved manipulation of the vaginal wall, making a colpotomy and excision of vaginal end of the fistula an easy initial step. The fistula tract was then easily placed on tension and precisely excised. Plane between vagina and bladder was further dissected to allow tension free closure. Fibrin glue (Tisseel®) was applied followed by interposition of an omental flap. Bladder was checked for watertight closure and postoperative cystogram confirmed resolution of VVF.

Discussion: Laparoscopic repair of PTLHVVF appears to be feasible and effective. It enables excellent visualization and identification of the distorted anatomy particularly with the assistance of vaginal palpation.

Author affiliation: Sydney Women's Endosurgery Centre. St George Private Hospital, Kogarah, NSW, Australia.

Notes

Abstracts Free Communications 2

Laparoscopic sacrocolpopexy: A series of 120 cases

Friday 8 August / Session 4 / Free Communications 2 / 1515-1525

Hamani Y, Chou D, Cario G, Rosen D, Carlton M, Anderson J, O'Neill A

Introduction: Pelvic organs prolapse remains to be a significant surgical challenge. Many procedures have been developed over the years, however an optimal operation is yet to be determined. Vaginal operations are associated with low morbidity but have relatively high recurrence rate. Laparoscopic sacrocolpopexy (LSCP) has been shown to be comparable to the "Gold Standard" abdominal sacrocolpopexy plus the additional benefits of minimally invasive route.

Objective: To evaluate our experience with the first 120 consecutive cases of LSCP for vaginal vault prolapse.

Methods and results: One hundred and twenty laparoscopic sacrocolpopexy operations were performed in our unit using Gynemesh PS® from Jan 2006 through Jun 2008. The LSCP was performed in conjunction with other procedures, mainly paravaginal repair and colposuspension. All patients had a vaginal examination 4-6 weeks postoperatively by a single examiner. A telephone questionnaire was administered to assess long-term symptoms and patients' satisfaction. We will present our surgical technique and demonstrate the efficacy of this procedure using the preoperative and postoperative POP-Q examination. Short and long term complication rates will also be presented.

Conclusions: LSCP, in our experience, has proven to be a safe and effective procedure with excellent results and low morbidity. Our experience concurs with the reported literature on the superiority of this procedure over conventional vaginal repair. Our "learning curve" has been modest due to our earlier experience with laparoscopic pelvic organ prolapse procedures. Long term outcomes are yet be determined with longer follow up.

Author affiliation: Sydney Women's Endosurgery Centre. St George Private Hospital, Kogarah, NSW, Australia.

Video Laparoscopic sacrocolpopexy: Lessons from 120 cases.

Friday 8 August / Session 4 / Free Communications 2 / 1525-1535

Chou D, Cario G, Rosen D, Carlton M, Anderson J, O'Neill A, Hamani Y

Abdominal sacrocolpopexy is recognised as one of the most effective surgical procedure for apical prolapse. It is often considered as the "default" procedure for recurrence of upper vaginal prolapse following other types of repairs. Laparoscopic sacrocolpopexy (LSC) is likely to provide similarly favourable results with the added benefits of laparoscopic route. LSC, however, like any laparoscopic version of an abdominal procedure requires a range of new techniques to carry out the necessary steps laparoscopically. Members of SWEC have been performing LSC from 2001 and have performed over 120 cases. A video presentation of helpful techniques acquired over this learning curve will be shared. It will include techniques for exposure, dissection of deep pelvis and over the sacral promontory, mesh fashioning and fixation, mesh tensioning and peritoneal closure.

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Transvaginal PROLIFT mesh repair for pelvic floor prolapse: Outcomes and complications in 114 cases

Friday 8 August / Session 4 / Free Communications 2 / 1535-1545

Kaufman Y, Alturki H, Ford R, Lam A

Study objective: To evaluate the safety and efficacy of the trans-vaginal PROLIFT mesh (TVM) technique.

Design: prospective observational study (Canadian Task Force III).

Setting: A tertiary referral center.

Patients: 114 women with uterovaginal prolapse of POP-Q stage ≥ 2.

Interventions: Trans-vaginal mesh repair performed by a single surgeon for significant utero-vaginal prolapse between February 2006 and October 2007 using macroporous soft polypropylene mesh with concomitant repair of co-existing pelvic floor defects.

Measurements and results: The mean age of the patients was 61 (range 31-84). Ninety one of the patients (80%) were post-menopausal. Forty eight patients had previous pelvic organ prolapse (POP) repair (42.1%), 54 had a previous hysterectomy (47.3%) and 13 had previous urinary continence surgery (11.4%). One hundred and three patients presented with a cystocoele (90.3%), 98 patients with recto/enterocoele (86%) and 82 with a central defect (vault or uterine prolapse, 71.9%). The preoperative POP-Q was stage 2 for 22 of the patients (19.3%), stage 3 for 72 of the patients (63.2%) and stage 4 for 20 of the patients (17.6%).

Nineteen of the patients had an anterior mesh repair (16.7%), 15 a posterior mesh repair (13.2%) and 74 had a total mesh repair (64.9%). Intraoperative complications included two bladder perforations.

The mean follow-up time was 7 months (range 1 to 24). During this period there were 4 mesh protrusions (3.5%), 10 mesh erosions (8.8%) and 5 procedure failures (4.4%).

A logistic regression analysis showed that age was significantly related to the risk of having mesh erosion (the mean age of the patients with erosion was 43.5 years compared to 52.3 for the patients with no erosion, p=0.007). The analysis also showed a borderline increased chance of needing further surgical repair in premenopausal patients compared to postmenopausal women for the mesh complications (erosion, protrusion) or for POP recurrence (p=0.050). An increased risk of needing further surgical interventions was also found to be related to the learning curve amongst the first 40 patients operated on during the study period (p=0.044) and an inversely related with age (p=0.028). There was no significant difference in postoperative morbidity amongst the three pelvic compartment repairs (anterior, posterior and total).

Conclusions: This study shows that transvaginal vaginal PROLIFT produces excellent anatomical outcomes with >95% success (defined as POP-Q ≤stage I) at mean follow-up of 7 months. Mesh protrusion (3-4%) and exposure (9%) remain potential complications of which patients should be aware. The management for these complications appears straightforward. The overall risk of needing further surgery for mesh exposure or surgical failure is significantly related to patients' age and menopausal status (younger and premenopausal women are at higher risk). Surgical outcomes including failure and post-operative morbidity are associated with the surgeon's learning curve with 40 procedures being the number required to show significant improvement in these two parameters.

References:

1 Olsen AL, Smith VJ, Bergstrom JO, et al. Epidemiology of surgically managed pelvic organ prolapse and urinary incontinence. Obstet Gynecol. 1997;89:501–506

2 Collinet P, Belot F, Debodinance P et al. Transvaginal mesh technique for pelvic organ prolapse repair: mesh exposure management and risk factors. Int Urogynecol J. 2006;17:315-20

Author affiliation: Y. Kaufman, H. Alturki, R. Ford, A. Lam. Centre for Advanced Reproductive Endosurgery, Sydney, Australia

Video
Understanding anatomy of sacral promontory: A must for laparoscopic sacrocolpopexy

Friday 8 August / Session 4 / Free Communications 2 / 1545-1555

Chou D, Cario G, Rosen D, Carlton M, Anderson J, O'Neill A, Hamani Y

Sacral promontory is one of the most feared part of the pelvic anatomy because of its potential risk of catastrophic haemorrhage. Thus when working in this area it is absolutely crucial that one should be most attentive and do utmost to avoid vascular injury in the first place. The anatomy in the area can be highly variable and may not be clearly apparent. It is therefore very important to be familiar with the anatomical structures and its variation. As laparoscopic mesh sacrocolpopexy (LSC) requires fixing of the mesh to the sacral promontory, anyone contemplating this procedure must familiarise with the area. This video presentation will present a wide range of anatomical variation of the sacral promontory and it's surrounding structures. Manoeuvre to improve exposure and identification of structures will also be demonstrated.

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Pre and post-operative dynamic MRI in a patient with Perineum Descent Syndrome managed by laparoscopic mesh sacral hysterocolpoperineopexy.

Friday 8 August / Session 4 / Free Communications 2 / 1555-1605

Chou D, Johnston K, Cario G, Rosen D, Carlton M, Hamani Y, Anderson J, O'Neill A

Introduction: Perineal descent syndrome is an uncommon condition where there is excessive laxity and ballooning of pelvic floor on straining. This excessive perineal descent is reported to be associated with a vicious cycle where the excessive stretching of the pelvic floor results in pudendal neuropathy and levator ani myopathy, which in turns compounds the original problem. Sacral colpoperineopexy has been suggested to be the surgical procedure of choice, as it not only effectively repairs the prolapse by reinforcing the endopelvic fascial supports but also provide additional support and stability to the pelvic floor musculature and its nerve supply. This potentially minimises overtly stretching of pudendal nerve and levator ani thus theoretically allowing maximum rehabilitation potential. MRI assessments on this patient were only carried out as part of another study. The dramatic stability of the levator ani on her postoperative MRI is a stark contrast to the obviously pathological "ballooning out" of her pelvic floor seen prior to her surgery.

Case Report: The case involves a 30 years old nulliparous nurse with perineal descent syndrome. She underwent abdominal rectopexy for rectal prolapse 6 months prior to presentation. At the time of presentation she had very distressing third degree uterovaginal prolapse with recurrence of rectal prolapse plus severe faecal incontinence. Her faecal incontinence was severe enough that the plan was to have ileostomy for faecal diversion. She underwent Laparoscopic mesh sacral hysterocolpoperineopexy plus laparoscopically assisted ileostomy. Her symptoms resolved dramatically and ileostomy was reversed 8 months later with complete faecal continence despite of not having any colorectal procedure.

Discussion: It has been an accepted fact that whilst the pelvic fascia can be repaired or reinforced through surgical repair, there is little that can be done for pudendal neuropathy and levator ani myopathy. The exciting aspect of witnessing the dramatic "normalisation" of levator plate on MRI and seeing marked improvement of her bowel function is that it gives hope that surgery may not only repair and reinforce endopelvic fascia but may also improve rehabilitation potential of pelvic floor muscle and it's nerve supply. This finding encourages us to perform our laparoscopic sacrocolpopexy by fixing the posterior vaginal mesh low onto the Pubococcygeous muscle as suggested by other well respected expert in the field.

References:

1 Kiff ES, Barnes PR, Swash M. Evidence of pudendal neuropathy in patients with perineal descent and chronic straining at stool. Gut, 1984, 25, 1279-1282

2 Cundiff GW, Harris RL, Coates K, Low VH, Bump RC, Addison WA. Abdominal sacral colpoperineopexy: A new approach for correction of posterior compartment defects and perineal descent associated with vaginal vault prolapse. Am J Obstet Gynecol 1997; 177; 1345-55

3 Link RE, Su LM, Bhayani SB, Wright EJ. Laparoscopic sacral colpoperineopexy for treatment of perineal body descent and vaginal vault prolapse. Urology 64: 145-147, 2004

4 Wattiez A, Mashiach R, Donoso M. Laparoscopic repair of vaginal vault prolapse. Curr Opin Obstet Gynecol 15:315-319. 2003

Author affiliation: Sydney Women's Endosurgery Centre St George Private Hospital, Kogarah, NSW, Australia.

Sacrospinous hysteropexy and anterior mesh: Isn't that a perfect match?

Friday 8 August / Session 4 / Free Communications 2 / 1605-1615

Feiner B, Gietelink L, Maher C

Objective: To prospectively evaluate the sacrospinous hysteropexy when used in conjunction with anterior mesh reinforcements in women with advanced uterovaginal prolapse.

Methods: Patients with uterovaginal prolapse who desired uterine preservation underwent anterior mesh

repair (Gynecare ProliftTM), sacrospinous hysteropexy and posterior (native tissue) repair. All patients were evaluated pre and post-operatively by standardised questionnaires and pelvic examination (POPQ). Objective success was defined as less than stage 2 prolapse at all compartments. Patient's demographics, peri-operative information and pre/post-operative examination were collected and analysed.

Results: Between 11/2005 and 8/2007, 119 consecutive patients underwent the aforementioned surgery. After mean follow-up of 13 months (5-27), 102 patients were available for review, 94 of whom were examined and 8 just filled in the questionnaire and satisfaction scale. The mean age, parity and BMI were 61 (33–83), 3 (0-8) and 25 (17-36) respectively. Mean operating time was 58min (25-140) with mean blood loss of 161ml (50-600). The mean hospital stay was 4 days (2-8) and the mean length of catheter use was 5 days. At follow-up, the mean patient's satisfaction rate was 8.5/10 and 93% stating they would recommend the surgery to a friend. The overall objective success rate was 76%. Compartment specific success rates for anterior, upper and posterior compartments were 87%, 88% and 96% respectively. In all recurrences the prolapse was no more than stage 2. Complications included 2 cases of blood loss > 400ml, 1 posterior hematoma, 5 UTI's, 1 persistent thigh pain, 10 vaginal erosions and 5 cases of dyspareunia. Most of the erosions measured less than 1x1cm and were asymptomatic. All were initially treated with topical oestrogen and 5 underwent surgical intervention.

Conclusion: The combination of sacrospinous hysteropexy, anterior mesh and posterior repair is reasonably effective in restoring the anatomy and achieving favourable bladder, bowel and sexual function, with acceptable complications.

Suggested reading:

1 Hiltunen R, et al. Low-weight polypropylene mesh for anterior vaginal wall prolapse: a randomized controlled trial. Obstetrics And Gynecology 2007;110(2 Pt 2):455-462.

2 Belot F, et al. Risk factors for prosthesis exposure in treatment of genital prolapse via the vaginal approach. Gynecologie, Obstetrique & Fertilite 2005;33(12): 970-4.

Author affiliation: B. Feiner, L. Gietelink, C. Maher. Wesley, RBWH & Mater Urogynaecology, Brisbane, QLD, Australia.

Abstracts Free Communications 3

Vaginal mesh contraction: Definition, clinical presentation and management

Friday 8 August / Session 4 / Free Communications 3 / 1515-1525

Feiner B, Maher C

Objective: To define the symptoms, physical findings and suggested management of vaginal mesh contraction.

Methods: We present our data on 11 consecutive patients who have experienced mesh contraction following vaginal mesh kit procedures for pelvic organ prolapse.

Results: All 11 patients underwent vaginal reconstructive surgeries employing synthetic meshes with extension arms. The most common presenting symptom was persistent vaginal pain and/or deep dyspareunia in sexually active patients. On pelvic examination there was always significant focal tenderness, most commonly at the junction between the main graft and one or more of the extension arms, and the involved arm felt like a prominent contracted band. Accompanying findings were mesh erosion (4 cases) and vaginal shortening (2). In our experience conservative management including topical oestrogen, pelvic floor exercises and vaginal dilators did not relieve the symptoms. Nine patients underwent mobilization of the mesh, division of the contracted arm from the main graft and partial excision of the contracted mesh. Mesh erosions were concomitantly oversewn. Of the 6 patients that were reviewed following surgery, 3 had compete resolution of the symptoms, one kept complaining of deep vaginal pain although on examination the vagina was loose with no tenderness, and in two cases there was only a small reduction in the pain with the full length of the mesh being tender to palpation. One of these patients underwent complete removal of the mesh followed by a dramatic symptomatic relief.

Conclusion: Vaginal mesh contraction is a significant complication, especially among sexually active women. It is characterized by persistent vaginal pain and/or deep dyspareunia with localized tenderness on examination and often a palpable prominent band. Management involves division of the contracted arm from the main graft with partial excision of the mesh. Longer term follow-up is required to determine the outcome following surgical management.

Suggested reading:

Gauruder-Burmester A, Koutouzidou P, Rohne J, Gronewold M, Tunn R. Follow-up after polypropylene mesh repair of anterior and posterior compartments in patients with recurrent prolapse. *International Urogynecology Journal And Pelvic Floor Dysfunction* 2007;18(9):1059-1064.

Author affiliation: B. Feiner, C. Maher. Wesley, RBWH & Mater Urogynaecology, Brisbane, QLD, Australia.

A physiotherapy exercise program for women undergoing gynaecological surgery

Friday 8 August / Session 4 / Free Communications 3 / 1525-1535

Frawley HC, Galea MP, Phillip BP, Bø K

Introduction: The aim of this study was to investigate whether physiotherapy, as an adjunct to surgery, would demonstrate significant improvement in bladder, pelvic organ prolapse (POP) and bowel symptoms compared to a control group at 3, 6, and 12 months post-operatively.

Materials & Methods: This study was an assessor-blinded randomised controlled trial. Included were women undergoing vaginal or laparoscopic-assisted vaginal surgery for either POP repair (primary or recurrent), and/or hysterectomy. Exclusion criteria were surgery for cancer or surgery for urinary incontinence (UI). Participants were randomised to receive either physiotherapy-supervised pre- and post-operative pelvic floor exercises, or 'usual care' provided by the surgeon and hospital. The physiotherapy intervention comprised a pelvic floor muscle (PFM) strength training protocol,

supplemented by bladder and bowel advice. The main outcomes of bladder and POP symptoms were measured by the Urogenital Distress Inventory (UDI-19) and the Incontinence Impact Questionnaire (IIQ-7). Secondary outcomes of bowel symptoms were measured by the Modified Wexner Score, and the Constipation Scoring System (CSS). All outcomes were measured pre-operatively, and at 3, 6 and 12 months post-operatively.

Results: Using intention to treat analysis, data from 49 participants were available for 12 month analysis, as shown in Table 1. There were no differences between groups on either the overall analyses, nor the repeated measures analyses. Baseline scores on the UDI and bowel outcome measures were strongly predictive of subsequent scores for both control and treatment groups.

Table 1 Between-group comparisons, n=49 (Control Group n=26, Treatment Group n=23)

Outcome	Change from Time 1 to Time 4	p value	Repeated measures analysis, interaction between time and group: p value	Effect of Time 1 as a predictor of subsequent scores: p value
UDI total score				
Control	44.1 (5.1)*			
Treatment	54.0 (5.4)*	0.20	0.46	0.000
UDI Irritative				
Control	12.5 (1.8)*			
Treatment	12.9 (1.9)*	0.88	0.41	0.000
UDI Stress				
Control	9.6 (3.6)*			
Treatment	15.1 (3.8)*	0.31	0.48	0.000
UDI Obstructive				
Control	23.4 (1.2)*			
Treatment	24.0 (1.3)*	0.77	0.72	0.04
IIQ			Time 2: 0.45;	
Control	0.0 (14.0) ~		Time 3: 0.07;	
Treatment	10.0 (19.0) ~	0.09	Time 4: 0.33	-
Wexner scale				
Control	1.5 (0.5)*			
Treatment	1.4 (0.5)*	0.86	0.29	0.000
CSS				
Control	1.8 (0.5)*			
Treatment	1.5 (0.5)*	0.63	0.63	0.000

* =Mean (± SEM); ~=Median (IQR)

Conclusion: Both control and treatment groups demonstrated an improvement in bladder, POP and bowel symptom scores following surgery, however the differences between groups were not significant. While the treatment group showed a trend towards more improvement than the control group, the trends did not reach significance. The reasons for this finding may include: insufficient sample size; insufficient training dosage for the treatment group and participation in PFM training by the control group; and heterogeneity of the cohort with regard to the surgical procedure. Since pre-operative scores were strongly associated with post-operative outcomes, targeting women with poorer scores in the pre-operative phase with a PFM training program may improve post-operative outcomes in a higher-risk group.

Author affiliation: H. C. Frawley, M. P. Galea, School of Physiotherapy, The University of Melbourne. B. P. Phillips, La Trobe University, Melbourne. K. Bø, Norwegian School of Sports Sciences, Norway.

The anatomic and functional outcomes of posterior compartment repair with re-attachment of the endopelvic fascia to the utero-sacral ligaments

Friday 8 August / Session 4 / Free Communications 3 / 1535-1545

Ritossa M, Baauw J, Munday D, Gailani O

Objective: This study was undertaken to evaluate the anatomical, functional, and quality of life effects of surgical correction of posterior compartment defects, using a modified technique, to identify, repair and reattach the posterior endopelvic fascia to the uterosacral ligaments.

Study Design: In a retrospective observational study 45 patients were identified who had undergone a posterior compartment repair with reattachment of fascia to uterosacral ligaments. Routine clinical review had been performed at 6 weeks and 4 months after the operation. Initially case notes were reviewed to determine the impact of the operation on prolapse symptoms. All patients were then sent modified PISQ and P-QOL questionnaires to assess quality of life, sexual function, and bowel function.

Results: At follow up, 4 month post operatively, 100% of patients reported resolution of prolapse related symptoms, including vaginal bulging, the use of digital assistance to defecate, and faecal incontinence. 96% of patients who had constipation and 96% of patients who reported abdominal discomfort preoperatively noticed improvement of their symptoms. 83% of patients who reported dyspareunia preoperatively noticed improvement at the 1st post

operative clinical review and 100% of patients reported improvement at the second post operative clinical review. There were no significant intraoperative or postoperative complications. 2 cases of urinary tract infection were identified and treated.

Quality of life questionnaire confirmed the improvement of prolapse related symptoms. Mean duration of follow up for the questionnaires was 41 weeks. Patients reported a statistically significant improvement in QOL questions including their ability to perform work (80%), sport or physical activities (94%) and socialisation (100%). Sexual function was improved in 59% of cases.

Conclusion: Posterior compartment repair with reattachment of the endopelvic fascia to the uterosacral ligaments provides an excellent anatomical and functional correction of posterior compartment prolapse.

Long term ring pessary use for Pelvic Organ Prolapse

Friday 8 August / Session 4 / Free Communications 3 / 1545-1555

Sarma S, Allen W, Parkin K, Karantanis E, Moore KH

Introduction: Up to 50% of parous women may develop prolapse. Current treatments include physiotherapy, ring pessaries and surgery. Ring pessaries aim to alleviate prolapse symptoms and avoid surgery but data on follow up is scarce. Complications including ulceration and vaginal discharge are well known but follow up studies are limited to less than 5 years. Our aim was to determine the long term success/complication rates for vaginal ring pessaries in women with prolapse. Our unit has been providing a weekly prolapse clinic since 1992.

Methods: As of Dec 2007, all charts were searched for by database and by hand from 1/1/92 to 31/12/02 and clinical and demographic data was obtained.

Results: In 10 years there were 27,732 attendances at the Pelvic Floor Unit; 291 patients had prolapse as a main complaint. 38 patients had a successful ring pessary fitting and returned for follow up. A further 37 had a bladder neck support device for prolapse with stress incontinence.

Of the 38 patients, average age was 69 (48-82), parity 2.6 (0-5). All had local oestrogens. The average length of pessary use was 3.6 years (range 0.1 – 12.2 years), median 12 months. Only (9/38) 23.6% continued to use a ring pessary at the study point.

Complications occurred in 15/38(39.4%) such as bleeding (6), severe vaginal discharge (2), extrusion of device (5), severe stress incontinence (1) and vaginal discomfort (1). However not all patients with complications discontinued using the ring: and some patients stopped using the ring because they preferred surgery not because of complications.

Of the 38, 14 chose surgery (of whom only 5 had actually suffered complications). 5 patients changed from a ring to an Introl device, 3 opted for no further prolapse treatment, 1 died and 6 sent a letter that they had moved.

Conclusions: With less than a quarter of women persisting with ring pessary use and a third experiencing complications, we suggest that this information be given to women when they attend for advice and management for the prolapse and consideration be given to offering surgical management sooner for those who are medically fit.

Author affiliation: S. Sarma, W. Allen, K. Parkin, E. Karantanis, K. H. Moore. Pelvic Floor/Bladder Unit, St George Public Hospital, Kogarah, NSW, Australia.

Response to Resiniferatoxin confusing in idiopathic detrusor overactivity

Friday 8 August / Session 4 / Free Communications 3 / 1555-1605

Bushati T, Moore KH, Allen W, Leek H, Woodman J, Burcher E

Hypothesis / aims of study: Intravesical resiniferatoxin (RTX) has been used to treat idiopathic detrusor overactivity (IDO)1 . The mechanism of action is unclear. After RTX 90% of 12 IDO patients 2 and 35% of 30 IDO patients3 had reduced frequency / urge incontinence. Detrusor contractions were abolished at urodynamics 1 month post-RTX in 33% of 30 patients3. This variable response prompted us to question whether certain patient subsets of IDO may respond better than others. We aimed to characterise RTX success in relation to clinical subgroup (i.e. congenital, post surgical, recurrent cystitis, and completely idiopathic).

Study design, materials and methods: Eligible patients were: female, age 25-90, with proven DO, who were "refractory" (no response to >2 anticholinergic drugs over > 12 months, persistent disabling symptoms on frequency volume chart, FVC). Exclusions were urodynamic stress

incontinence, neurological disease. Informed written consent was obtained with local Ethical Committee approval. Outcomes are per Table1.

RTX (Sigma) stock solution (500 nM) was made up in ethanol, to 50 nM with 90 ml sterile saline. Post void residual (PVR) was sent for culture (CSU), bacterial cystitis was defined as 108 CFU/L with pyuria >10. The RTX was left in the bladder for 30 min then drained. Aetiological subsets were analysed.

Results: To date, 32 patients have completed therapy, median age = 66 (IQR 60-77). Table 1 shows response. N values are shown because compliance with FVC declined. MannWhitney or Wilcoxon tests employed, values are median (IQR).

The response in the 4 aetiological subgroups did not differ.

Table 1	Pre RTX [n]	1 month post RTX	n value	3 month post RTX	n at 3/12	P value 3/12 vs baseline
Voids /day	8 (7-11) 31	9(7-10)	26	9(7-11)	25	ns
Nocturia	2 (1-3) 31	1 (1-3)	26	1(1-3)	25	ns
Urges/ 24h	55 (2-9) 30	4.5(0-9)	26	3(0-9)	25	ns
Leaks/ 24h	4(3-6) 32	3(1-5)	32	3(1-5)	31	ns
Pad test g	68 (25-272)29	83 (11-237)	25	88(25-208)	24	ns
ICIQ	16 (13-20) 32	16(11-18)	29	15(12-17)	29	ns
UDI	50 (39-60) 32	44(33-60)	28	33(19-61)	29	0.05
OABQ syst	65% (47-5)32	52% (43-71)	29	55(38-80)	29	ns
IIQ	71 (39-84) 32	62(28-78)	29	38(21-78)	29	0.045

Of the 32 participants, 10 had no PVR upon catheterisation, but we were surprised to find that 5 of the 22 samples revealed significant bacterial cystitis. A further 4 patients experienced post treatment cystitis. The data were re-analysed excluding these 9 patients, the benefit for reduced leaks per day in n=23 approached significance (P = 0.06).

Conclusions: Our response rate is lower than other authors but we employed a strict definition of "refractory" status, many of our patients had symptoms for decades. Despite these results 10/32 (31%) of the patients found RTX worthwhile and requested repeated treatments.

References:

1. J Urol 2002; 168:575-579
2. Urol 2002, 59 (Suppl 5A); 51-60
3. Int Braz J Urol, 2004, 30: 53-58

Author affiliation: T. Bushati, K. H. Moore, W. Allen, H. Leek, J. Woodman, E. Burcher. St George Hospital, University of New South Wales, Sydney, Australia. Pelvic Floor Unit, St George Hospital, Kogarah, NSW, Australia.

Pelvic floor repairs, laparoscopic and vaginal; Audit series 256 cases at Womancare, Wellington, NZ

Friday 8 August / Session 4 / Free Communications 3 / 1605-1615

Iyengar V

Audit period 2003 March to 2008 March

I present a single surgeon series of 256 cases to the AGES of 'laparoscopic pelvic floor reconstructions and vaginal approach repairs for a 5 year period between march 2003 – March 2008' from Wakefield Hospital in Wellington, NZ.

I have previously presented my Combined Series with done with a Urologist at the AGES conference in Adelaide, May 2006. This follows on from that and is level 1 practice based evidence and audit for discussion.

The 5 year series discussed numbers, operative details, complications, long term follow up and outcomes from my single surgeon audit series in this field. It is also the 1st single surgeon long term prospective level one practice based audit, volunteered in this newer surgical discipline, by any surgeon from NZ. It is therefore valuable data for our College.

The audit makes for good collegial discussions on this contentious surgical discipline and for formulating further best practice improvement strategies.

Author affiliation: V Iyengar. WomanCare, Wellington, NZ.

Abstracts Saturday 9 August

Hysterectomy in Australia

Saturday 8 August / Session 6 / 0800-0815

Cooper M

Hysterectomy is the most frequent operative procedure performed on women approximating a 30% cumulative incidence in the Australian population. Despite this there appears to have been a decrease in the number of hysterectomies performed in Australia over the last 13 years. This has occurred in the setting of an increasing population. The largest fall has been in abdominal hysterectomies which have been partly replaced by the uptake of laparoscopic hysterectomy. Concurrently new technologies such as the endometrial ablation techniques, embolisation, HPV and possibly therapeutic ultrasound systems and stem cell therapy are likely to mean there will be a further fall in the hysterectomy rate. Many of these techniques will be useful for the more normal types of uteri but may not be appropriate for the larger uteri or those with more complex problems. The net effect is thus likely to be in the future, fewer, but more difficult hysterectomies.

These events are occurring at a time when the current training scheme is such that trainees and newer fellows will be uncomfortable when confronted with a difficulty hysterectomy. Maintaining an appropriate balance of surgical expertise and availability may become difficult.

Author affiliation: M. Cooper. Clinical Senior Lecturer, Department of Obstetrics and Gynaecology, Sydney University, NSW, Australia.

Should the uterus be preserved?

Saturday 9 August / Session 6 / 0815-0830

Farnsworth B

The role of hysterectomy in prolapse surgery is controversial. Tradition has supported the removal of the uterus when reproduction is complete due to the future risk of malignancy and vaginal hysterectomy and repair is a common procedure. However, the poor durability of colporrhaphy and the development of an enterocoele after hysterectomy is often cited in the literature but disputed by others.

Advocates of uterine preservation point out the central structural role of the uterus and the cervical ring in pelvic support. The cervix also provides a durable point of attachment in reconstructive surgery. Loss of blood supply is an important factor in poor healing of vault tissues and may predispose to complications with implanted prostheses. Conflicting evidence is presented with regard to sexual function after hysterectomy. Recent data shows increased complications of mesh implantation when the mesh is implanted at the same time as a hysterectomy is performed.

New techniques of mesh implantation that include uterine preservation may reduce the incidence of complications and improve functional outcomes in pelvic reconstructive surgery.

Author affiliation: B. Farnsworth. Sydney Adventist Hospital, Wahroonga, NSW, Australia.

Subtotal hysterectomy: How and why

Saturday 9 August / Session 6 / 0830-0850

Lam A

Debate continues as to whether subtotal hysterectomy should be the procedure of choice for benign indications such as menstrual disorders, fibroids or adenomyosis. The procedure has received periodic waves of enthusiastic support ever since its first performance by Clay in 1863. Subtotal hysterectomy may be performed by abdominal or laparoscopic route. The latter requires morcellation for removal of the uterine corpus, either by mini-laparotomy or by automatic morcellator.

The reasons for the recent resurgent interest in subtotal hysterectomy are partly driven by recent development of minimally invasive hysterectomy, increasingly rare cervical cancer from effective cervical screening, recent introduction of HPV

vaccines, and partly by continuing perceived benefits from preservation of the cervix in terms of neuro-anatomical and psycho-sexual integrity.

Proponents of subtotal hysterectomy believed the technique is superior to total hysterectomy due to:

- Reduced risk of damage to bladder and ureter
- Reduced risk of pelvic haematoma
- Reduced risk of post-operative fever
- Reduced risk of bowel dysfunction
- Reduced risk of sexual dysfunction
- Reduced risk of vault prolapse

These perceived benefits are, however, not supported by the Cochrane Database of Systematic Reviews 2006 in which results from 3 randomised trials were examined. The review found:

- No evidence of a difference in stress incontinence, urgency or urge incontinence
- No evidence of a difference in the rates of constipation at 6 or 12 months follow-up
- No evidence of a difference in sexual function and rates of sexual problems
- No evidence of a difference in physical or mental function
- No evidence of differences in urinary tract injury, pain score, wound infection, persistent pain, bowel obstruction or pelvic prolapse.
- Ongoing vaginal bleeding was 11.9% after subtotal compared to 0.8% after total hysterectomy
- The length of time required for surgery was significantly shorter for subtotal when compared with total hysterectomy
- Amount of blood loss was significantly less for subtotal when compared with total hysterectomy.
- Febrile morbidity was less likely after subtotal compared to total

At present, women should be informed of the lack of data demonstrating clear benefits of subtotal over total hysterectomy. They should also be advised of the contraindications to subtotal hysterectomy (gynaecological cancer, current or recent cervical dysplasia, endometrial hyperplasia, abnormal uterine bleeding where cervical or endometrial pathology has not been excluded, women undergoing prolapse repair with elongated cervix) and the need for long-term follow-up.

References:

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Author affiliation: A. Lam. Centre for Advanced Reproductive Endosurgery. Department of Obstetrics and Gynaecology, Royal North Shore Hospital, Northern Clinical School, University of Sydney, NSW, Australia.

Hysterectomy of the future - Which approach: Vaginal, laparoscopic, or robotic?

Saturday 9 August / Session 6 / 0850-0910

Paraiso MFR

Objective: To predict the future of vaginal, laparoscopic, and robotic hysterectomy in a world where over 50%-60% of hysterectomies are performed by abdominal route.

Methods: All subspecialty and benign gynecology staff at the Cleveland Clinic and a few well-known US colleagues were polled regarding hysterectomy of the future. Surgical techniques for laparoscopic and robotic-assisted hysterectomy will be briefly outlined here.

Results: Robotic-assisted laparoscopic hysterectomy will increase amongst gynecologic oncologists and generalists who have access to robots. The number of vaginal and laparoscopic hysterectomies will decrease in these centers. Vaginal hysterectomies will continue to be performed in centers that have strong Urogynecology and vaginal surgery teaching programs.

Conclusions: Despite advances in technology, including flexible robots, most hysterectomies will be performed by abdominal route because of dilute resident training and decreased surgeon reimbursement for gynecologic procedures. Alternatives to hysterectomy will decrease overall numbers of hysterectomies.

References:

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3 Kho RM, Hilger WS, Hentz JG, Magtibay PM, Magrina JF. Robotic hysterectomy: technique and initial outcomes. Am J Obstet Gynecol 2007; 197:113.e1-113.e4

Author affiliation: M. F. R. Paraiso. The Cleveland Clinic, Cleveland, Ohio, USA.

Which energy source for hysterectomy? Harmonic scalpel

Saturday 9 August / Session 6 / 0910-0920

Lam A

Harmonic scalpel, a surgical instrument used extensively in both open and endoscopic procedures in many surgical specialties, is an excellent energy for hysterectomy due to its unique physical- biological properties.

Harmonic scalpel works by converting electrical into ultrasonic energy to move a surgical blade at 55,000 Hz. This causes protein denaturation to occur, resulting in a coagulum to seal blood vessels (coaptive coagulation) at low temperatures ranging from 50 to 1000 C. Lasers and electrosurgery, on the other hand, coagulate tissues at higher temperatures ranging from 150 to 4000 C, resulting in dessication and charring (obliterative coagulation).

When using ultrasonic energy, the surgeon can determine the precision of tissue cutting and coagulation by selecting the power level (range from 1 to 5), the blade edge (sharp or blunt), the degree of tissue traction (nil to tight) and the blade pressure (light to firm).

Ultrasonic energy has the benefits of:

- being a multipurpose instrument - the coagulating shear can be used to grasp, open, dissect and coagulate small blood vessels
- minimal charring and dessication – hence reducing need for instrument cleaning
- no electricity to or through the patient – hence reducing the risk of inadvertent electro-diathermy injuries
- minimal smoke evacuation compared to eletectrosurgery
- minimal lateral thermal damage – hence is safe to use close to bladder, bowel and ureter

Combining ultrasonic energy (laparoscopic coagulating shear) and a good bipolar diathermy, the surgeon can seamlessly move from grasping and retracting the targeted tissues, to dissecting the surgical planes, to isolating the infundibulo-pelvic ligament, the ureters, the uterine vessels, to coagulation of small blood vessels, dividing the parametrium and finally colpotomy for complete sub-total or total hysterectomy with minimal change of instrumentation.

Bipolar diathermy is advisable for coagulation of large blood vessels such as the IP and uterine vessels.

With appropriate education and training, harmonic scalpel is a great, inherently safe surgical tool for hysterectomy.

Author affiliation: A. Lam. Centre for Advanced Reproductive Endosurgery. Department of Obstetrics and Gynaecology, Royal North Shore Hospital, Northern Clinical School, University of Sydney, NSW, Australia.

Which energy source for hysterectomy? Ligasure

Saturday 9 August / Session 6 / 0920-0930

Obermair A

Ligasure is a vessel sealing device capable of securing blood vessels up to 7 mm in diameter. It works based on bipolar principles but features additional characteristics specific to Ligasure.

Its vessel seal is enhanced by compression of the vessel walls and an electronic feedback mechanism indicating when the vessel seal is complete. Ligasure is ideal for operations in which a vessel seal is required, such as oophorectomy (IP ligament), hysterectomy (uterine artery) or radical hysterectomy (parametria).

Author affiliation: A. Obermair. Gynaecological Oncologist, Greenslopes Private Hospital; Director of Research Queensland Centre for Gynaecological Cancer, Brisbane, Queensland, Australia.

Hysterectomy: The Cleveland Clinic way - let the video roll

Saturday 9 August / Session 6 / 0930-0950

Walters MD

In the Benign Gynecology Section at the Cleveland Clinic over two-thirds of hysterectomies are done vaginally for indications related to pelvic organ prolapse. Menorrhagia, endometriosis, and uterine

fibroids comprise the next most common indication; the majority of these are done laparoscopically with the abdominal route being reserved for those cases in which laparoscopic and vaginal access is not possible. We are very interested in the role of the surgical robot in hysterectomy and this will be summarized by Dr. Paraiso. We are committed to teaching classic techniques of vaginal hysterectomy including concurrent vaginal oophorectomy and morcellation of enlarged uterus as illustrated in the videos. Lately we have taken a keen interest in understanding hand motions as they relate to vaginal hysterectomy. Using motion analysis, we have compared and contrasted beginner surgeons with expert surgeons to understand ways to more efficiently teach residents proper surgical techniques (see video). We plan to use these data to create simulation models for vaginal surgery, similar to those that have been done for laparoscopic surgery.

Suggested Reading:

Falcone T, Walters MD. Hysterectomy for benign disease. Obstet Gynecol 2008; 111:753-67

Author Affiliation: M. D. Walters, MD, Professor and Vice Chairman of Gynecology, Cleveland Clinic, Cleveland, Ohio, USA.

Perioperative bladder, bowel and urinary tract complications

Saturday 9 August / Session 7 / 1030-1045

Cario G

The only way to stop perioperative complications is to stop operating altogether. They are inevitable. To minimise risk we need to focus on Preoperative risk assessment, intraoperative risk assessment and postoperative risk assessment.

In this lecture I will deal with the factors related to incidence, recognition and management of these complications.

I will discuss this in terms of the various phases of perioperative care.

1 Preoperative
2 Intraoperative-entry
  - procedure related
3 First hour after surgery
4 First 24 hours after surgery
5 First week
6 Follow up visit
7 Long term.

We will discuss various presentations of bladder, bowel and lower urinary tract injury and what I feel may be optimal management.

Author affiliation: G. Cario. Sydney Womens Endosurgery Centre, Sydney, NSW, Australia.

The role of hysterectomy in bladder, bowel and sexual function

Saturday 9 August / Session 7 / 1045-1100

Manning J

While the debate remains unresolved, current evidence, mainly from prospective cohort studies, suggests that, at least over the short term, hysterectomy has no detrimental effect on bladder, bowel or sexual function.

On the whole, improvements in function are noted.

Changes on bladder function have been most extensively studied.

It has been proposed that surgery improves continence by reinforcing bladder base support.

Some evidence suggests however, that a subgroup (perhaps 17%) may experience either a deterioration, or the appearance of de novo incontinence with further deterioration over time.

Long term effects are more difficult to follow but it may take time for changes in function to evolve.

Over the long term, retrospective cohorts and population based cross sectional studies, suggest deterioration in bladder and possibly bowel function.

Difficulties studying the long term effects may be compounded by the fact that the prevalence of severe urinary incontinence in the community is low, which would make, even a doubling of risk, difficult to detect with the usual sample sizes reported.

Altman's recent survey of 165,260 hysterectomies was able to show a doubling of urinary incontinence surgery, from 1-2%, after hysterectomy when compared to matched community controls. Thus the risk, while doubled, remained in absolute terms, very low.

Long term injury to pelvic autonomic innervation and to pelvic structural supports have been proposed as mechanisms to explain this deterioration in function.

Another possible explanation lies with the fused somatic and autonomic innervation of the pelvis,

which shows great convergence, demonstrating extensive cross system viscero-visceral interactions within the CNS. While this is organized for coherent pelvic functioning in our society, it serves as a substrate by which pathophysiology in one organ can influence physiology and responses to pathophysiology in other organs.

Some cross system effects when the uterus is acutely injured, could include functional changes within the CNS resulting in the appearance of permanent bladder and colon inflammation in otherwise healthy organs. The bladder seems particularly predisposed to these effects. Perhaps this might provide an explanation for some of the unexpected deterioration in bladder, bowel and sexual function, noted in a minority.

The precise mechanisms for this are poorly understood, but changes in function including pain may result when autonomic innervation becomes confused .

Importantly, deterioration in sexual function has also been noted to relate to identifiable pre-operative factors such as depression, poor relationship with partner, poor support or dissatisfaction with the indication for surgery.

Author Affiliation: J. Manning. Hamilton, NSW. John Hunter Hospital, New England Area Health Service, New Lambton, NSW, Australia.

Hysterectomy in the obese

Saturday 9 August / Session 7 / 1100-1120

Nicklin J

Society is in the grips of an obesity epidemic. Obesity is associated with and predisposes to a number of gynaecological conditions, many of which may require hysterectomy, including endometrial hyperplasia and cancer, PCOS, dysfunctional bleeding and menorrhagia, and urogenital prolapse. Despite the availability of non-surgical options, the aging of society combined with increasing obesity has lead to an increasing requirement to perform hysterectomy in the obese. There are increased complications of surgery in this group including cardiorespiratory, thromboembolic, infectious, problems of poor surgical and vascular access, problems of managing co-morbidities, and wound dehiscence and hernia. Awareness and attention to these problems and can minimize risk. Total laparoscopic approach to surgery appears to provide a considerable advantage to obese and morbidly obese women who require hysterectomy. A laparoscopic approach does require some flexibility and innovation particularly with respect to positioning, non-slip devices, warming devices, vascular access, thromboprophylaxis and the opportunity to convert to laparotomy. Sometimes open surgery is unavoidable. The options of pre-operative taping of pannus + Pfannenstiel, vertical midline (VML) incision, supra-umbilical VML and panniculectomy will be discussed. The limited data of hysterectomy in the obese will be presented.

References:

1 Frigg A et al *Obesity Surg* 2004;14:216

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9 Tillmans TD et al *Gynecol Oncol* 2001;83:518-22

10 Wright JD et al *Gynecol Oncol* 2006;102:86-91

Author affiliation: J. Nicklin, Associate Professor, Director Gynaecologic Oncology Royal Brisbane and Women's Hospital, Queensland, Australia.

Pelvic organ prolapse – Epidemiology

Saturday 9 August / Session 9 / 1330-1345

Benness C

Pelvic organ prolapse (POP) is a common condition which affects the quality of life of many women. Its prevalence is probably underestimated. Unfortunately, there remains no clear agreement on the demarcation between normal changes to genital tract support following childbirth, and what constitutes POP. This is highlighted by Swift's study in the USA which found that 94% of women presenting for routine health assessment had findings on examination consistent with POP, and 50% had a significant degree of prolapse[(1)]. Therefore many women who can be categorised as having prolapse on physical

examination findings, do not manifest symptoms consistent with POP. Terms such as `preclinical' prolapse have been suggested for these women and longitudinal studies are required to better understand this group and their relationship to future symptomatic POP. There is nevertheless, an association between increasing severity of POP and increasing symptoms and effects on quality of life[2]. The importance of POP for gynaecologists is indicated by the Olsen study[3] which found that the lifetime risk of having surgery for POP or urinary incontinence is in the USA is 11%, with up to one third of women requiring repeat procedures. These figures underestimate the true prevalence of symptomatic POP as many women are treated conservatively (eg pessaries), or do not present for treatment despite their symptoms. Other prevalence studies include the analysis of women enrolled in the WHI trial, which found that 40% of women aged 50-79 years had some form of prolapse[4] while Beck[5] found that 50% of parous women have POP.

In the United States, there are approximately 200,000 surgical procedures for POP each year at a direct medical cost of over one billion dollars. The rate of prolapse procedures in women over 50 years in the USA is 3 procedures per 1000 women[6], with similar rates in the United Kingdom. Approximately 20% of POP surgery is associated with a concomitant procedure for urinary incontinence. Based on population projections and anticipated demographic changes by the year 2030, consultative services for POP are projected to increase by 45% (7)

Anterior vaginal wall prolapse is the most common type of POP. Although parity and particularly vaginal delivery, is a major factor in the pathogenesis of prolapse in many women, POP can occur in nullipara (4), though is significantly less common. Childbirth was the strongest risk factor for POP in the Oxford FPA study (8), and the risk was increased by large babies, a long second stage, forceps delivery and third degree tears. Childbirth can predispose to POP by direct trauma to pelvic tissues, but also by causing denervation of the pelvic floor. Connective tissue factors are probably important in many women who develop POP and may explain the lower prevalence of this condition in black women compared with white (4). Other factors in the pathogenesis of POP are menopausal hypoestrogenism, chronic elevation of intra-abdominal pressure and iatrogenic factors (such as distortion of normal pelvic anatomy by surgery).

References:

1 Swift SE. The distribution of pelvic organ support in a population of female subjects seen for routine gynecologic health care. Am J Obstet Gynecol 2000; 183: 277-285

2 Benness CJ & Alexander I. Quality of life assessment in women with uterovaginal prolapse. Int Urogyn J 2001;Vol 12 Suppl 3: 24

3 Olsen AL, Smith VJ, Bergstrom JO, et al. Epidemiology of surgically managed pelvic organ prolapse and urinary incontinence. Obstet Gynecol 1997; 89: 501-506

4 Hendrix SL, Clark A, Nygaard I, et al. Pelvic organ prolapse in the Womens Health Initiative: gravity and gravidity. Am J Obstet Gynecol 2002;186:1160-1166

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6 Hamilton S, Weber AM, Meyn L. Prolapse procedures in the United States, 1979-1997. Am J Obstet Gynecol 2003; 188:108-115

7 Luber KM, Boero S, Choe JY. The demographics of pelvic floor disorders: current observations and future projections. Am J Obstet Gynecol 20011; 184:1496-1503

8 Mant J, Painter R, Vessey M. Epidemiology of genital prolapse: observations from the Oxford Family Planning Association Study. Br J Obstet Gynaecol 1997;104:579-585

Author affiliation: C. Benness. Royal Prince Alfred Hospital, Sydney, NSW, Australia.

Pelvic Organ Prolapse PhysiotherapY (POPPY): The methodology of a trial of pelvic floor muscle training for prolapse

Saturday 9 August / Session 9 / 1345-1400

Frawley HC, Sherburn M, Hagen S, Galea MP

Introduction: At present, there is minimal evidence for the effectiveness of conservative management of pelvic organ prolapse[1]. The results of a small study[2] suggested that women receiving pelvic floor muscle training (PFMT) tended to have better prolapse symptom outcomes. Therefore a large, well-designed RCT was indicated to test these findings of the effectiveness of PFMT as a low-risk, low-cost treatment strategy for POP. This study (POPPY) has two independent, but complementary parts. Part 1 will contribute to an international RCT – POPPY (UK) – examining the effectiveness and cost-

effectiveness of physiotherapist-delivered PFMT in the management of POP in women. In Part 2 – POPPY (Australia) – changes in PFM function in association with changes in prolapse symptoms will be evaluated. The hypotheses are that PFMT is 1) effective in reducing prolapse-specific symptoms, prolapse severity and the need for further treatment; 2) is cost effective ; 3) reduces prolapse-specific symptoms by improving PFM function.

Materials & Methods: The Australian arm of the POPPY (UK) study will contribute 36 subjects to the international POPPY trial data, and the POPPY Australia study will recruit 180 subjects, to investigate the mechanisms underlying changes in PFM function associated with changes in pr Stage I, II or III prolapse. Randomisation will be to a PFMT group or to a control group receiving lifestyle advice to minimize risk factors for prolapse. Subjects will be assessed at baseline, 6 and 12 months. The primary outcome measure for the POPPY UK study is the prolapse symptom score and for POPPY Australia, PFM function. Other outcome measures include: prolapse-related quality of life, prolapse severity (POP-Q assessment), need for further prolapse treatment, and 3-D transperineal ultrasound. The outcomes will be compared between the intervention and control groups at each time point using generalised linear models that adjust for the centre, stage of prolapse and surgery status factors and baseline characteristics.

Results: Part 1 and Part 2 of this trial have commenced in Australia. The progress of recruitment, randomisation and retention to date will be reported.

Conclusion: If PFMT for POP is found to be effective and cost-effective, implementation of this low-risk intervention in the primary care setting in Australia and other countries will lead to a substantial improvement in women's quality of life, will reduce progression of the condition and reduce the need for, or delay expensive surgery, thereby reducing the burden on the health care system.

References:

1 Hagen S, Stark D, Maher C, Adams E. Conservative management of pelvic organ prolapse in women. Cochrane Database of Systematic Reviews 2006(4):CD003882

2 Hagen S, Stark D, Sinclair L, Glazener CM, Ramsay I. A feasibility study for a randomised controlled trial of a pelvic floor muscle training intervention for women with pelvic organ prolapse. Neurourology and Urodynamics 2006;25(6):532-533

Author affiliations: H. C. Frawley, M. Sherburn & M. P. Galea School of Physiotherapy, The University of Melbourne. S. Hagen, Glasgow Caledonian University, Scotland.

Basic science of grafts for POP

Saturday 9 August / Session 9 / 1400-1420

Paraiso MFR

Objective: To discuss biologic reasons for the use of graft material in Urogynecology and Reconstructive Pelvic Surgery.

Methods: Manuscripts regarding various implants used in POP surgery were reviewed and are summarized in this lecture.

Results: Criteria for graft selection vary according to patient characteristics and indicated procedures. Meta-analyses regarding graft use in POP repair are difficult to interpret because of variations (mesh, surgical technique.

Conclusions: No prosthesis is perfect. There is an urgent need for improved studies.

New procedures should be introduced via prospective cohorts assessing safety and efficacy.

References:

1 Paraiso MFR. "The Use of Biologic Tissue and Synthetic Mesh in Urogynecology and Reconstructive Pelvic Surgery". In MD Walters and MM Karram, eds: Urogynecology and Reconstructive Pelvic Surgery, Third Edition Mosby, Inc., St. Louis, MO, 2006, 295-306

2 Moalli PA, Talarico LC, Sung VW, et al. Impact of menopause on collagen subtypes in the arcus tendineous fasciae pelvis. Am J Obstet Gynecol 2004;190:620–627

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Inc, St. Louis, MO 2006

6 Choe JM, Kothandapani R, James L, Bowling D. Autologous, cadaveric, and synthetic materials used in sling surgery: comparative biomechanical analysis. Urology 2001;58:482-486

7 Fokaefs ED, Lampel A, Hohenfellner M, Lazica M, Thuroff JW. Experimental evaluation of free versus pedicled fascial flaps for sling surgery of urinary stress incontinence. J Urology 1997;157:1039-1043

8 Fitzgerald MP, Mollenhauer J, Bitterman P, Brubaker LT. Functional failure of fascia lata allografts. Am J Obstet Gynecol 1999;181:1339-1344, discussion 1344-1346

9 Klinge U, Schumpelick V, Klosterhalfen B. Functional assessment and tissue response of short- and long-term absorbable surgical meshes. Biomaterials 2001;22:1415-1424

Author affiliation: M. F. R. Paraiso. The Cleveland Clinic, Cleveland, Ohio, USA.

Which graft to use? The American Medical Systems perspective. Vault Reconstruction: Perigee/Apogee. 'Restringing the Hammock'

Saturday 9 August / Session 9 / 1420-1430

Erickson T

Well over 100 years ago surgeons began placating to support the pelvic floor. During the past twenty years a myriad of procedures have presented to assist in providing a more accurate restoration of the pelvis with our increased understanding of pelvic functional anatomy. Many of these procedures including vaginal paravaginal repairs and sacrocolpopexy have been difficult to learn and train our colleagues in a safe and effective manner. Recognition of the limited success of plication procedures has led to the addition of graft augmentation of biologic and synthetics to attempt achieving improved success rates.

This presentation will focus on the specific techniques of using a "kit" to provide a uniform vault reconstruction modality for both the anterior and posterior compartments Perigee/Apogee respectively. We will emphasize an increased understanding of the anatomy, a review of the controversy of synthetic mesh and a brief summary of available data.

Author affiliation: T. B. Erickson. Chairman Board of Managers, Mountain View Hospital. CEO Rosemark WomenCare Specialists.

Which graft to use? Johnson & Johnson Medical perspective

Saturday 9 August / Session 9 / 1430-1440

Frazer M

By the eighth decade of life 9% of women will have undergone some form of operation for utero-vaginal prolapse. Of these women one third will require a further operation within ten years of the first. Sometimes this will be for a recurrence of the original problem and sometimes it will be a new prolapse that has developed. It remains to be seen whether the apparently inexorable rise in abdominal deliveries will alter these basic figures in the next forty years. (What little we do know from community based surveys is that incontinence and prolapse get to large numbers of women eventually if they live long enough. Having babies normally just means it gets to them sooner.)

No operation has a 100% success rate and all operations carry some degree of risk. Even if the original problem disappears – another may be produced. If we had an operation that was 100% successful and never harmed anyone then it is possible that even more women would undergo surgery. Over the last ten years or so there has been much effort directed to attempting to improve the success rates of surgery for prolapse (as well as stress leakage but this is not part of this talk). The use of mesh within the vagina, analogous to the use of mesh in hernia surgery, is rising rapidly. Many of these new procedures come in the form of "kits" and for the first time in any surgical discipline mechanical devices hold out the possibility of reducing one of the main causes of variation in surgical success rates – namely, the skill of the surgeon!

As early as 1952 the optimal properties required for synthetic materials to be used as implants were elucidated.

- It was stated that the prosthesis must:
- not be physically modified by tissue fluids
- be chemically inert
- not excite an inflammatory or foreign body cell response in tissues
- be non-carcinogenic
- not produce a state of allergy or hypersensitivity
- be capable of standing up to mechanical strain imposed upon it

- be capable of being fabricated in the form required with reasonable ease at a relatively low cost
- be capable of being sterilized.

Amid, in 1997, proposed a system to classify available materials for hernia surgery.21 This classification consists of 4 groups, Type 1 – 4, and is based on pore size.

All meshes are not the same and it is essential for the clinician to be familiar with the behaviour of these materials in vivo. Long term clinical data is currently conspicuously lacking but initial signs are that careful selected use may be advantageous in terms of surgical results and repair durability.

The lecture will discuss the latest evidence for the J&J Prolift devices in the management of vaginal prolapse.

Author affiliation: M. Frazer. Specialist urogynaecologist. Gold Coast, Queensland, Australia.

Which graft to use in pelvic organ prolapse? SurgiSIS

Saturday 9 August / Session 9 / 1440-1450

Lander JL

The principles of hernia repair should equate with appropriate prolapse repairs. These include;

1 Tension free tears in the investing fascia
2 Avoidance of infection
3 Re-anchoring to fascial support
4 Protection of the repair from intra-abdominal pressure
5 Utilization of tension free mesh graft.

Synthetic mesh mainly Amid type 1 macroporous poly propylene prosthesis has revolutionized the surgical approach to urinary incontinence and groin hernia repair. Ventral herniorraphy with proline mesh has curtailed the recurrence rate but has limitations. Similarly small uncontrolled trials have showed improved vaginal repair rates with associated high rates of vaginal erosion and organ dysfunction. Xenografts were introduced to overcome these mesh related complications of erosions, fistula, pain and infection.

First generation biografts were chemically cross linked resulting in grafts similarly to Amid type 2 synthetic mesh which encourages encapsulation and weak anchorage site.

Second generation biografts as surgiSIS are basically an acellular extra cellular matrix scaffold of collagen, glycosaminoglycans growth factors, proteolyses and glycoproteins, which cleverly remodels over three to six months into native tissue. These three dimensional scaffolds are biocompatible, free of pathogens, endotoxins, pyrogens and viruses. Also they are free of adverse local or systemic affects, free of carcinogens and free of teratogens. A scaffold of sufficient strength to prevent recurrences during the remodeling period is required.

The reconstructive procedure that benefit from these clever remodeling grafts are rectocele repairs, overlay graft anterior vaginal repairs, selected sacrocolpopexies and possibly pubo vaginal and mid urethral tension free vaginal slings.

Short term success rates of up to 95% are shown. Durability is uncertain. Randomized control trials are required before a general update of these procedures is recommended.

Author affiliation: J.L. Lander. QEII Hospital. Brisbane, Queensland, Australia.

Pelvic Organ Prolapse surgery: The Cleveland Clinic way

Saturday 9 August / Session 9 / 1545-1610

Walters MD

The history of surgery for pelvic organ prolapse at the Cleveland Clinic started with Dr. Lester Ballard who was the Department's second chairman and a master vaginal surgeon from 1975 to 1995. He did classic vaginal surgery techniques based on the teachings of Dr. David Nichols; these included predominately high McCall culdoplasty, sacrospinous ligament suspension, and meticulous posterior colporrhaphy with perineorrhaphy. Based on follow-up of his patients for up to 14 years, and careful analysis and staging examinations by Dr. Paraiso, we determined that in our hands, even with a very skilled vaginal surgeon, our highest rate of prolapse failure was in the anterior vaginal wall and our lowest rate of failure was rectocele repair. We found that, even with a somewhat tight vagina by today's standards, patient satisfaction was very high and was less determined by specific vaginal anatomy (caliber and length) than by symptoms of prolapse recurrence and incontinence. We further found that anterior vaginal plication by whatever technique commonly resulted in the anterior vaginal wall at POP-Q 0 or -1 cm, but patient satisfaction remained high. Our randomized comparison of biologic mesh versus two popular techniques of rectocele repair confirmed our feeling

that a sutured repair is the most effective and that posterior vaginal wall mesh is not necessary. Based on our strong belief that sacrocolpopexy with mesh remains the most effective operation for recurrent apical prolapse we currently do open, laparoscopic, and robotic sacrocolpopexy and are carefully tracking our results, complications, and costs with special care to determine the role of robot-assistance for this surgery. We are a member of the National Institutes of Health (NIH) Pelvic Floor Disorders Network and have vaginal surgery trials ongoing comparing TVT versus No-TVT for continent women with prolapse, and uterosacral ligament colpopexy versus sacrospinous colpopexy for vaginal treatment of apical prolapse. Except for sacrocolpopexy and slings we are conservative with our use of vaginal meshes. We believe that very careful assessment of multiple outcomes for each surgery on protocol is the key for true progress in this field.

Suggested Readings:

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2 Weber AM, Walters MD, Piedmonte MR: Sexual function and vaginal anatomy in women before and after surgery for pelvic organ prolapse and urinary incontinence. Am J Obstet Gynecol 2000; 182:1610-15

3 Paraiso MFR, Walters MD, Rackley RR, Melek S, Hugney, C. Laparoscopic and open abdominal sacral colpopexies: a comparative cohort study. Am J Obstet Gynecol 2005; 192:1752-8

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Author Affiliation: M. D. Walters, MD, Professor and Vice Chairman of Gynecology, Cleveland Clinic, Cleveland, Ohio, USA.

Robotic and laparoscopic POP surgery: the way we do it

Saturday 9 August / Session 9 / 1610-1630

Paraiso MFR

Objective: To describe our methods of robotic and laparoscopic POP surgery at the Cleveland Clinic.

Methods: Assessment of the changes in laparoscopic POP surgery over the past 10 years and adoption of robotic-assisted laparoscopy over the past 2 years.

Results: Tips and tricks that I have learned regarding laparoscopic and robotic POP surgery will be presented here. Particular challenges and thoughts for improvements in technique are presented.

Conclusions: Robotic and laparoscopic POP surgery continues to thrive at the Cleveland Clinic. We are in the midst of a randomized trial of robotic-assisted and conventional laparoscopic sacral colpopexy.

References:

1 Paraiso MF. Laparoscopic Treatment of Incontinence and Prolapse. In MD Walters and MM Karram, eds: Urogynecology and Reconstructive Pelvic Surgery, Third Edition Mosby, Inc., St. Louis, MO, 2006, 213-226

2 Paraiso MFR, Walters MD, Rackley RR, Melek S, Hugney C. Laparoscopic and Open Sacral Colpopexies: A Cohort Study. Am J Obstet Gynecol 2005;192:1752-8. Abstract J Pelvic Surg 2004;10:S1

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Occult stress incontinence: what is it, and what do we do about it?

Saturday 9 August / Session 9 / 1630-1645

Karantanis E

Occult stress incontinence (OSI) is the objective pre-operative finding of stress incontinence during prolapse reduction in otherwise continent women with pelvic organ prolapse (POP).

Whether OSI is adequately detected by urodynamics is unclear. A recent comparison of different prolapse reduction methods was published by Visco et al (Int J Urogyn 2007). The use of forceps, swab, and manual reduction, gave similar findings with approximately a 20% yield of OSI. Presumably these three approaches represent the realistic incidence of urodynamically proven OSI in continent women with POP.

Whether women with OSI are at greater risk of de novo stress incontinence after prolapse surgery has been the subject of recent controversy. The multicentre RCT by Brubaker et al (NEJM 2006) assessing 322 continent women with POP (whose OSI status was unknown), suggested 24% of women developed de novo stress incontinence after sacrocolpopexy with Burch colposuspension. However, upon unblinding, 27% were OSI-positive at pre-operative urodynamics. This finding may have various interpretations, but a possible conclusion is that sacrocolpopexy is a leakage-provoking procedure, which the Burch colposuspension incompletely corrects. The incidence of bothersome incontinence is 6%, compared to 24% without Burch colposuspension. Two years post-operatively, treatment was given to 10% of patients who had a burch and 20% of candidates who didn't.

The findings of the Brubaker study cannot be extrapolated to other surgical procedures. For instance, vaginal surgery of the anterior compartment may not have the elevating effects or posterior forces created by the sacrocolpopexy. There are no studies of a similar quality and design to the Brubaker study for vaginal procedures. Most data on vaginal surgery draws the opposite conclusions to that of the Brubaker study, suggesting that continence surgery not be performed concurrently with prolapse surgery, even if the OSI status is known.

It is common Scandinavian practice to perform staged prolapse surgery, treating prolapse first and adding continence surgery in the near future if de novo incontinence exists. In a case series by Jundt et al (Abstract IUGA 2006) 233 continent women complaining of POP had prolapse-only surgery. Nearly 8% had de novo stress leak post op and had a subsequent TVT. A subset of 53/233 had had pre-operative urodynamics of whom 19 were OSI-positive. Only 3/19 (15%) were in the subgroup that needed surgery. So 16/19 OSI-positive women didn't need continence surgery, negating the need for 16 prophylactic TVTs.

A recent study by Schierlitz et al (abstract IUGA2007) looked at 52 continent women with POP who were OSI-positive. All underwent standard anterior/posterior colporrhaphy and were randomised to TVT or No TVT. In the No TVT group, 1 of 27 (3.7%) women required a TVT, performed 6 months post-op. 2/25 in the TVT group self-catheterised for 10 days.

An RCT by Meschia et al (am JOG 2004) also looked at a cohort of 50 OSI-positive patients (25 in each group). 1/25 in the TVT group reported postoperative SUI symptoms, compared to 9/25 (36%) in the fascial group. Of these 9 leaking patients, 4 needed no further treatment, 3 had surgery, and 2 chose pelvic floor training (a 12% re-operation rate).

In summary, in continent women complaining of POP, the sacrocolpopexy gives a 20% risk of needing further treatment within 2 years, but adding a burch colposuspension decreases the risk to 10%. In vaginal surgery, the risk of de novo stress incontinence requiring further management ranges between 3.7-12% but data is limited. Vaginal prolapse procedures appear to be more continence protective without needed a concomitant continence procedure and most women with OSI are likely to be cured with their prolapse procedure. The decision to perform concomitant continence surgery vs a risk of needing future continence surgery is needs discussion between clinician and patient until more data is available.

Urodynamic procedures appear not to be beneficial for continent women requiring sacrocolpopexy with Burch colposuspension. However in the case of vaginal surgery, the case for and against urodynamics (such as the predictive value of voiding parameters on post-operative voiding difficulty) has not been adequately reviewed.

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Australian Gynaecological Endoscopy Society Ltd

Upcoming AGES MEETINGS

Leading the way in gynaecological surgery

AGES Focus Meeting

ENDOSCOPY FOR FERTILITY

Perth 20th & 21st November 2008

Ovum II by Ana Duncan

Approximately 10-15% of couples will require some form of assistance in achieving a pregnancy, and this figure may be higher in certain groups of patients.

Endoscopic surgery has provided not only improved means of diagnosis of problems, but also surgical options to treat conditions where improved fertility outcomes are needed.

The meeting in Perth aims to show the current and future role of endoscopic surgery in sub-fertile couples, with national and international experts in the area.

Topics to be discussed include management of uterine anomalies, training in minimal access surgery for fertility specialists, management of pelvic and adnexal diseases, management of tubal disease in ectopic pregnancy, fertility preserving cancer surgery, interactive sessions involving complications of surgery in those wishing to conserve fertility, and new techniques for fertility surgery.

We aim to explore the breadth and depth of endoscopy in this field of gynaecology, so those attending the meeting will have a greater practical and theoretical and theoretical knowledge of the area to apply in practice.

Krish Karthigasu Chairman **Tony McCartney** Co-Chairman

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