



Australian  
Gynaecological  
Endoscopy  
Society Ltd.

THURSDAY 8 & FRIDAY 9 NOVEMBER 2007  
ADELAIDE CONVENTION CENTRE &  
HYATT REGENCY ADELAIDE

AGES PELVIC FLOOR SYMPOSIUM & WORKSHOP VIII

# *Pelvic Floor Surgery in Perspective*

## *Program & Abstracts*

International Guest Speakers

Professor Linda Cardozo, UK  
Professor Peter Sand, USA

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## *PR&CRM Points*

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

### *Full attendance:*

17 CPD points in the Meetings category

(Attendance Thursday 8 November 8 CPD points.

Attendance Friday 9 November 9 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 on Thursday 8 and Friday 9 November.

The Pre-Questionnaire is to be handed in at Morning Tea on Thursday 8 November. The Post-Questionnaire is to be handed in at the close of the meeting, Friday 9 November. No exceptions can be made to these deadlines.

Certificates of attendance will be mailed with questionnaire results after the meeting.

# Conference Committee

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 Dr Elvis Seman  
 Dr Fariba Behnia-Willison  
 Dr Jenny Cook  
 Dr Susan Evans  
 Dr Graham Hamdorf  
 Dr Carl Lam  
 Dr Enzo Lombardi  
 Dr Michael McEvoy  
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Dr Richard Reid	New South Wales
Dr Elvis Seman	South Australia
Dr John Taylor	South Australia
Dr Jim Tsaltas	Victoria
Dr Anusch Yazdani	Queensland



# Welcome

*AGES President and Conference Chairmen*

Dear Colleagues,

On behalf of the board of the Australian Gynaecological Endoscopy Society and the local organising committee, we cordially welcome you to Adelaide for the AGES Pelvic Floor Symposium and Workshop VIII. Our theme *Pelvic Floor Surgery in Perspective* is timely, considering ongoing debate with regard to vaginal repair augmentation techniques. Our overseas faculty, Professor Linda Cardozo UK, and Professor Peter Sand USA, are world renowned and widely published. Their contributions, will be eagerly anticipated. Surgery for the pelvic floor remains the cornerstone of gynaecological practice, and we are all keen to come to grips with the optimum uses of mesh. Our national and international faculty will lead interactive discussions and debates on these important issues. Our surgical demonstrations of vaginal and laparoscopic procedures will showcase the broad range of pelvic floor surgery. Other contentious issues such as 'designer vagina' will be addressed by Linda Cardozo in her keynote address.

The Cocktail evening on Thursday, 8<sup>th</sup> of November, will showcase the Gil Langley Room on the top floor of the Bradman Stand looking out on the Adelaide Oval. The Conference Dinner on Friday, 9<sup>th</sup> of November, will take us to the home of Grange at the legendary Magill Estate Restaurant.

We welcome you to another interesting and thought provoking meeting in Adelaide.

Robert O'Shea  
Chairman

Elvis Seman  
Co-Chairman

Alan Lam  
President AGES

# Conference Program

THURSDAY 8 NOVEMBER 2007

0730-0800 Conference Registration

0800-0805 Conference Opening and Welcome  
A Lam, R O'Shea

0805-0820 PR&CRM pre-questionnaires  
R Ford

## SESSION I THE CURRENT MUDDLE Chair: A Lam, I Hocking Sponsored by Stryker

0820-0840 Urodynamics – Yes/No?  
L Cardozo

0840-0900 Do ya speak my lingo?  
Current procedures & nomenclature  
P Sand

0900-0920 What's happening?  
Current practice in Australia & abroad  
E Seman

0920-0940 Big brother & mesh surgery :  
Strictly a research tool or a bonafide  
therapeutic option?  
Debate: For – C Maher  
Against – B Farnsworth

0940-1000 Finding the middle ground in the  
muddle – Panel challenge

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### 1000-1030 Morning Tea and Exhibition

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## SESSION II ANTERIOR VAGINAL PROLAPSE Chair: J Cook, D Munday

1030-1050 Mesh options for anterior vaginal  
prolapse: which one, when?  
(tailored mesh, kits & porcine grafts)  
P Sand

1050-1150 Native tissue options:  
20 min each procedure and results for:  
Colporrhaphy – C Maher  
Site-specific – R Reid  
Laparoscopic suture repair – R O'Shea

1150-1210 Repair of primary & recurrent anterior  
defects – in perspective  
P Sand

1210-1230 Questions for the panel

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### 1230-1330 Lunch and Exhibition

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## SESSION III APICAL COMPARTMENT PROLAPSE Chair: M McEvoy, P Maher

1330-1350 Mesh sacral colpopexy (open vs  
laparoscopic) procedures and results  
G Cario

1350-1410 Transvaginal approach: where do  
suture & mesh options fit in?  
P Sand

1410-1425 Sacrospinous colpopexy:  
which is the best technique?  
J Taylor

1425-1445 Suprapubic vs vaginal options, in  
perspective  
P Sand

1445-1500 Quiz the panel

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### 1500-1530 Afternoon Tea and Exhibition

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## SESSION IV POSTERIOR VAGINAL PROLAPSE Chair: A Yazdani, S Evans

1530-1615 Native tissue options:  
15 mins each procedure and results for:  
Colporrhaphy – L Cardozo  
Site-specific – F Behnia-Willison  
Laparoscopic suture repair – A Lam

1615-1635 Mesh options for posterior vaginal  
prolapse: which one, when?  
P Sand

1635-1650 Repair of primary & recurrent post  
defects: in perspective  
M Carey

1650-1705 Quiz the panel

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1715 Delegates gather in the foyer of the  
Adelaide Convention Centre for a short  
walk to the Adelaide Oval

1730-1930 Welcome Cocktail Reception  
Gil Langley Room,  
Adelaide Oval

FRIDAY 9 NOVEMBER 2007

**SESSION V  
LIVE SURGERY**

Moderators: K Karthigasu, H Merkur  
Sponsored by  
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- 0800-1200 **Theatre 1:**  
a. Posterior colporrhaphy  
b. Laparoscopic mesh sacral colpopexy  
c. Laparoscopic paravaginal repair

- Theatre 2:**  
a. Anterior & posterior repair –  
colporrhaphy +/- augmentation  
+/- sacrospinous colpopexy  
b. Site-specific anterior repair  
c. TVT-O  
Presentation - LeFort Procedure  
G Hamdorf

- 1145-1200 Cystoscopy and the gynaecologist  
P Dwyer

**1200-1300 Lunch and Exhibition**

**SESSION VI**

Chairs: E Lombardi, M Ritossa  
Sponsored by Tyco

- 1300-1320 **Keynote address:**  
**What to do when slings fail or are  
inappropriate**  
L Cardozo

**COEXISTANT PROLAPSE & URINARY  
INCONTINENCE**

- 1320-1340 SUI & POP – when & how to do  
concurrent & interval continence  
surgery  
P Sand
- 1340-1400 Dx & Mxt occult SUI, before & after  
prolapse surgery  
L Cardozo
- 1400-1415 Challenge the panel

**SESSION VII**

Chairs: R O'Shea, C Lam

- 1415-1430 **Keynote address:**  
Why it falls out – evidence from  
twin studies  
P Sand  
Professor Peter Sand sponsored by Hospira

**HYSTERECTOMY AND PROLAPSE**

- 1430-1445 Optimising hysterectomy techniques to  
minimise consequent pelvic organ  
prolapse & dysfunction  
P Maher
- 1445-1500 Uterine preservation or hysterectomy  
during POP repair – when & how?  
P Dwyer
- 1515-1530 Panel clarification

**1530-1600 Afternoon Tea and Exhibition**

**SESSION VIII**

**OPTIMISING PATIENT OUTCOMES**  
Chairs: A Lam, E Seman  
Sponsored by Stryker

- 1600-1615 Patient oriented goals  
L Cardozo
- 1615-1630 Measures to avoid & defer surgery  
G Burton
- 1645-1700 Prevention & treatment of commonly  
litigated complications  
P Sand
- 1700-1720 **Keynote address:**  
**Designer vagina**  
L Cardozo
- 1720-1730 PR&CRM post-questionnaires
- 1730 Close  
E Seman

- 1900 Dinner guests gather in the foyer of the  
Hyatt Regency for coach transport to  
Penfolds Magill Estate Restaurant.  
Coach departs 1910

- 1930-2300 Gala Dinner**  
**Magill Estate Restaurant**  
78 Penfold Road, Magill SA 5072

# Abstracts Thursday

## Urodynamics: Yes or no

Thursday 8 November / Session I / 0820-0840

Cardozo L

**Aims:** To review evidence regarding preoperative urodynamic investigation for prolapse surgery.

**Results:** Correction of pelvic organ prolapse can either ameliorate or exacerbate stress incontinence, urge incontinence or voiding difficulties. Video urodynamics in particular is helpful in understanding the relationship between prolapse and LUTS, and thereby modifying patients' expectations for surgery. Despite this, there is an absence of evidence to suggest that urodynamics improves objective outcomes.

**Conclusions:** Urodynamics should always be considered in the presence of LUTS. Even without overt LUTS, urodynamics may prove helpful in counselling patients.

### References:

The effect of genital prolapse on voiding. Romanzi LJ, Chaikin DC, Blaivas JG. *J Urol.* 1999 Feb;161(2):581-6

## What's happening? Current practice in Australia and abroad

Survey on the Surgical Management of Prolapse in Australia and New Zealand in 2007

Thursday 8 November / Session I / 0900-0920

Seman E, Vanspauwen R, Cook J, Keirse M, O'Shea R, Behnia-Willison F, Lam C, Dwyer P

**Aims:** To assess what surgeries Australian & New Zealand practitioners are using to treat pelvic organ prolapse and compare practice between two practitioner groups (A- urogynaecologists and special interest practitioners, B- generalists) and with current trends in the UK.

**Method:** Postal questionnaire survey of all practicing gynaecologists in Australia and New Zealand. The questionnaire was used with permission from Drs Moran & Jhu who

surveyed UK gynaecologists in 2006 after formulating four case scenarios which encompassed practice in contentious areas of prolapse management. We received 196 complete responses from 1471 gynaecologists.

### Results:

**Scenario 1 – anterior vaginal prolapse:** Anterior colporrhaphy was procedure of choice in 54% of respondents, compared with 77% in the UK, followed by paravaginal repair in 12%. 20% of respondents used a graft for primary prolapse (72% synthetic, 14% biological) and 71% used a graft for recurrent anterior prolapse (93% synthetic, 6% biological). Australian and New Zealand practitioners used twice as many grafts in the anterior compartment as their UK counterparts, relying mostly on permanent mesh kits, whilst biomesch was preferred in the UK.

In women with concomitant urodynamic stress incontinence, 77% of respondents preferred a midurethral tape and 12% performed a Burch. These rates mirrored UK preferences.

A was less likely to perform anterior colporrhaphy than B and more likely to perform paravaginal repair or use a graft. A was more likely to use delayed absorbable or permanent sutures than B. There was no difference in the choice of continence procedures between A and B.

**Scenario 2 – uterovaginal prolapse:** 78% of respondents performed vaginal hysterectomy with anterior colporrhaphy. The UK rate was similar. 23% would operate in women whose family was incomplete and the procedure of choice was laparoscopic uterosacral hysteropexy (36%). In the UK 22% would operate on women planning more children and they preferred a Manchester repair (27%). In 51% percent procedure for supporting the vault intraoperatively was uterosacral colpopexy, compared with 63% in the UK.

A was less likely to perform vaginal hysterectomy and anterior colporrhaphy than B. Other surgical trends were similar.

**Scenario 3 – posterior vaginal prolapse:** The procedure of choice was midline plication in 56% of respondents, and site-specific repair in 24%. In the UK 75% preferred midline plication. 13% of respondents used a graft for primary



posterior repair, and 41% of recurrent posterior prolapse, with 79% preferring permanent mesh.

UK rates of graft utilisation were similar, however 58% preferred a biological mesh.

A was less likely to perform standard posterior vaginal repair and more likely to use a graft, for primary and recurrent prolapse.

**Scenario 4 – apical prolapse:** 70% of respondents would operate, and 45% of these ordered urodynamics preoperatively. In the UK a similar proportion would operate but only 36% performed urodynamics before surgery.

In Australia and New Zealand the procedure of choice was anterior and posterior colporrhaphy in 65% and sacrospinous fixation in 48%. This was followed by vaginal mesh repair in 30% (59% synthetic, 8% biological) and abdominal sacrocolpopexy in 11%. This contrasted with the UK where 38% preferred abdominal sacralcolpopexy, followed by anterior and posterior colporrhaphy in 28%, and sacrospinous fixation in 19%.

In women with concomitant occult incontinence, 40% of those who would repair the prolapse added a continence procedure, the most common being a midurethral tape.

Significantly more UK practitioners performed concomitant continence surgery (54%).

The procedure of choice for A was a graft repair, and for B midline plication. For complete vaginal eversion B was more likely to add sacrospinous colpopexy to anterior and posterior colporrhaphy than A.

**Practitioner profile:** 65% of respondents were generalists, 27% special interest practitioners and 4% were urogynaecologists. 35% classified prolapse according to degree (1-4), 24% according to grade (1-3), and 21% used POPQ. 99% followed up their patients, with 49% seeing them only at 6 weeks, 36% arranged follow-up for up to 1 year, and 13% saw patients for longer.

A was more likely to measure prolapse objectively than B, and to follow-up patients for longer.

**Conclusion:** Whilst there is a wide variation in the management of prolapse in each pelvic compartment, Australian and New Zealand

gynaecologists used fewer traditional transvaginal procedures in the anterior and posterior compartments, and more vaginal grafts than their UK colleagues in all compartments.

Respondents preferred permanent implants over biomesh and most favoured mesh kits. 22% of practitioners objectively measured prolapse and 14% followed up their patients for more than 1 year.

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- 2 Dept. of Obstetrics and Gynaecology, Mercy Hospital for Women, Heidelberg, Vic 3084

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## Big Brother and mesh surgery – strictly a research tool or a bonafide therapeutic option

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Thursday 8 November / Session I / 0920-0240

Farnsworth B

Peer reviewed studies reporting outcome data for the use of mesh in prolapse surgery have appeared in the literature since 1990. Most available data relates to the use of mesh in abdomino-sacrocolpopexy<sup>1</sup> but a number of series of mesh implantations for recurrent vaginal prolapse have been published since 1996 with an average 2 years follow up and low rates of complications.

Traditionally postgraduate training in pelvic surgery has involved preceptorship and mentoring of colleagues together with the sharing of collective experience derived from the publication of retrospective studies. Now these types of studies are regarded as low in significance compared to the information derived from randomised controlled trials (RCTs).

There is a long history of innovation in gynaecology involving new surgical prostheses where following an early promising report an implant is used for some time, and then abandoned due to complications. Problems

# Abstracts Thursday

with silicon coated slings<sup>2</sup>, Panacryl sutures<sup>3</sup>, bone anchors<sup>4</sup> and multifilament IVS<sup>5</sup> tapes were reported in retrospective observational studies of real patient groups long before any concerns were raised in RCTs. It is also clear that the results of traditional surgery for prolapse, especially anterior prolapse are unsatisfactory<sup>6</sup> and this fact alone has been used to justify the use of synthetic mesh in primary cystocele repair<sup>7</sup>.

Opinions differ as to what is the best way to develop the evidence base that is needed for the majority of surgeons to comfortably move forward with vaginal mesh techniques. Some experts have advocated caution and recommended that surgeons wait for the results of RCTs that are in development. Others believe that information derived from RCTs in complex clinical situations is not always helpful in practice. In addition, there are a number of quantitative errors that can lead to systemic bias in the interpretation of data from RCTs<sup>8</sup>. Techniques have been developed to analyse early clinical outcome data from real patient populations. This information is essential to design good RCTs.

Practice based evidence and clinical practice improvement (PBE-CPI) is a technique that enables the data necessary for the design of good clinical trials to be obtained and analysed in everyday practice<sup>9</sup>. Unfortunately, most trials currently in progress have been designed to favour the commercial interests of one product over another<sup>8</sup> and in some cases the RCT has been designed at the very beginning of a surgeon's experience before his or her "best practice" techniques have been determined.

The key to safe, ethical practice remains informed consent to treatment with ongoing rigorous audit of outcomes and the honest provision of information to patients considering treatment. In Australia, important valid clinical information has already been obtained by a number of surgeons who have incorporated the use of mesh into their clinical practice in the last 10 years. Rather than attempting to limit and control the practice of these surgeons we should be trying to increase the availability of data that is derived from this early experience.

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## Native tissue options - colporrhaphy

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Thursday 8 November / Session II / 1050-1110

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Maher C

The surgical management of anterior compartment prolapse remains controversial. The surgeon is exposed to a huge variety of native surgical techniques and biological, absorbable and non-absorbable synthetic grafts to correct the defects.

The traditional anterior colporrhaphy involves the central plication of paravesical tissue. The success rate of anterior colporrhaphy (AC) in case series ranges from 80-100%<sup>1,2</sup>. After more rigorous evaluation in randomized control trials

Weber et al<sup>3</sup> and Sand et al<sup>4</sup> reported the AC to be successful in the management of anterior compartment prolapse in only 42% and 57% respectively. While no women in either study required further surgery to correct anterior compartment prolapse these results were met with widespread concern. Interestingly, in 1996 when Benson published his RCT comparing the sacral colpopexy and sacrospinous colpopexy the ideal success rate of the sacral colpopexy was lower than that reported for anterior colporrhaphy above and was met with widespread acclaim. The reoperation in Benson's study was over 10% at 2 years<sup>5</sup>.

Following the success of synthetic mesh at continence surgery and at sacral colpopexy many clinicians have employed biologic or synthetic grafts in an attempt to improve the surgical outcome of anterior compartment prolapse surgery. Julian et al demonstrated in a prospective case control study that in women who had undergone at least 2 previous vaginal repairs the overlaying of Marlex (Bard, Billerica, MA, USA) mesh to the anterior colporrhaphy reduced the recurrence rate of cystocele from 33% to 0%. The Marlex mesh was associated with a mesh erosion rate of 25%<sup>6</sup>. Many authors have described the use of tensionless polypropylene mesh with a success rate of over 90% and mesh erosion rates of between 6-13%<sup>7-9</sup>.

Eglin et al was the first to describe fixing the polypropylene mesh through the obturator membrane with an Emmet needle in 103 consecutive cases<sup>10</sup>. The recurrence rate at 18 months was only 3% and the mesh erosion rate was 5%. De Teyrac et al<sup>11</sup> pursued the theme of fixing the mesh through the obturator membrane and used a specifically designed low weight polypropylene mesh coated in an absorbable hydrophilic film to minimize acute inflammation of the pelvic viscera on 132 women with anterior compartment prolapse. At 1-year the recurrence rate was 6.8% and the vaginal erosion rate was 6.3%. The authors claimed the hydrophilic coating reduced early post-operative local morbidity.

More recently three randomised controls have evaluated the AC against monofilament polypropylene graft with conflicting results. Lim et al reported in abstract form a RCT comparing traditional plication (60) with

polypropylene repair (62) in anterior and or posterior compartments. In preliminary data at 12 months the objective success rate in the mesh group was 82% and 66% in the traditional repair group ( $p < 0.05$ ). High patient satisfaction rates were reported in both groups at 88% and 83% respectively and no difference in quality of life was reported between the two groups. The rate of de novo dyspareunia was 18% in the mesh group and 21% in the non-mesh group.<sup>12</sup> Further evaluation of full data set at full publication is required. In a second RCT comparing anterior repair (97) with monofilament polypropylene (105) at 1-year the failure rate was 38% (32/85) and 8% (7/92) respectively ( $P < .001$ ). The mesh erosion rate was 18% and the rate of dyspareunia was 36% and 32% respectively.<sup>13</sup> A third RCT compared Gynaemesh PS with traditional AC and at 6 months was not able to demonstrate a benefit from the monofilament polypropylene mesh. The failure rate was 6.6% (3/46) and 11.6% (5/43) respectively ( $P > 0.05$ ) with mesh erosion rate of 6.5%.<sup>14</sup> Meta-analysis of this data is required.

No RCT's are available comparing the manufactured polypropylene meshes to AC for anterior compartment prolapse. The use of absorbable or biologic grafts has arisen from a desire to obtain the benefit of the permanent synthetic grafts without the morbidity. Two well conducted randomized control trials (RCT) 3, 4 have evaluated the safety and efficacy of absorbable Polyglactin 910 mesh (Vicryl, Ethicon, Sommerville, USA) and although the results were conflicting meta-analysis from the Cochrane review<sup>15</sup> concluded the Polyglactin 910 was effective in reducing the rate of recurrent cystocele as compared to the traditional anterior colporrhaphy.

Donor allograft and xenografts material including Porcine dermis (Pelvicol) and small intestine submucosa (SIS) have been favored as they may reduce the risk of vaginal erosion but have a potential risk of prion or viral transmission. Gandhi et al<sup>16</sup> in a RCT demonstrated that augmenting the anterior colporrhaphy with solvent dehydrated cadaveric fascia lata (2x4cm Tutoplast) failed to be effective in minimizing recurrent anterior wall prolapse (16/76) as compared to AC alone (23/78). Similarly, SIS overlay in a small case

# Abstracts Thursday

control study failed to demonstrate any reduction in anterior compartment prolapse as compared to the AC alone<sup>17</sup>. The assumption that allografts and xenografts cause little morbidity is challenged by a retrospective cohort study that demonstrated no benefit from the use of predominately biologic grafts (SIS, Pelvicol and cadaveric fascia lata) as compared with AC. The graft infection rate was 18% and granulation tissue was seen in 39%<sup>18</sup>. Alternatively Meschia et al<sup>19</sup> demonstrated, in a large well conducted RCT, that augmenting the AC with Porcine skin dermis (Pelvicol TM) significantly decreased the rate of anterior compartment recurrence (7/98) as compared to anterior colporrhaphy alone (20/103) (RR 0.37 95% CI 0.16-0.83). Morbidity was similar between the groups with one case of graft erosion that required oversowing.

The surgical management of anterior compartment prolapse remains difficult.

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## Anterior Compartment. Strengths & Limitations of Native Materials for VPVR

Thursday 8 November / Session II / 1110-1130

Reid R

**Objective:** Cystocele is a form of hernia, and should be repaired using 'hernia principles' namely, 'site-specific' fascial repair using permanent suture, without tension in any direction. Weakened tissue should be bolstered with a suitable implant. This study evaluates paravaginal repair, with or without an onlay graft, in 169 consecutive women with complex cystoceles over a nine year period (1997-2006).

**Materials & Methods:** There were 49 abdominal (APVR) and 120 vaginal (VPVR) repairs 34 by 'suture only' technique, 29 with a vaginal fibromuscularis autograft and 57 with a SurgiSIS® overlay graft. Main outcome measures were recurrent anterior prolapse; persistent or de novo incontinence, urgency, voiding difficulty or dyspareunia; and all significant complications. Reliability in year 1 was assessed by contingency table analysis and longterm durability by Kaplan Meier survival analysis.

**Results:** Repair was anatomically successful in 92% of APVR and 84% of VPVR patients. Pre-existent symptoms like bulge awareness, pelvic drag/backache, urinary incontinence, and voiding difficulty were all significantly improved (P values < .05). On subgroup analysis, VPVR with SurgiSIS® onlay graft outperformed the 'suture only' and vaginal autograft techniques (98% vs 84% vs 65%). Success rate increased incrementally, as

operative technique satisfied the 'hernia principles' more closely. Major complication rate was 7.54%; no graft-related morbidity was seen.

**Conclusions:** Incorporating a bioabsorbable protein scaffold with remodeling properties shortened and simplified what was previously a difficult operation. VPVR with SurgiSIS® onlay graft allows surgeons to strengthen the anterior suspensory hammock from arcus to arcus and from pubourethral ligament to pericervical ring.

Lecture will be based on a further 2 year update of this FIGO 2006 abstract.

### LECTURE OUTLINE

**Introduction:** Surgical results for plication repairs have been consistently poor for 80 years – irrespective of operator skill or precise method. Why is this so? There are two basic reasons:

- Firstly, plication does not repair the true site of anatomic damage.
- Secondly, plication does not solve the connective tissue degeneration that accumulates at the site of these original fascial tears.

With respect to the *pathogenesis of cystocele*, it has been traditionally taught that fascia attenuates after childbirth. However, this concept has two fallacies.

1. Healthy fascia is like canvas - it does not stretch, but it will tear at pre-determined weak points. Recognition of these anatomic truths has given rise to the concept of 'site-specific' repair, (in which the surgeon directly re-sutures this torn native tissue). Specifically,
  - The anterior suspensory hammock is fascial diaphragm slung between the pericervical ring above & the urogenital diaphragm below, and attached laterally to the ischial spines & white lines. As such, it functions like a trampoline.
  - Biomedical engineering principles state that diaphragms fail when forces concentrate - that is to say, peripherally not centrally. The distal margin is too strong to fail because it is attached to bone. However, lines of

potential weakness exist superiorly & along the lateral aspect.

- If this hammock fails superiorly & laterally, the trampoline is turned into a trapdoor. Thus Valsalva pressure will push down a rotatory cystocele, as can be seen in this clinical example.
- 2. The second fallacy is that although initially non-distensible, the pubocervical fascia eventually degenerates and the central hammock then stretches. This is analogous to what happens in hernias.
- By definition, hernia is the protrusion of an internal organ through the abdominal wall, usually at the site of congenital weakness. Formation reflects both a mechanical event and a metabolic event. Mechanical event is a congenital or traumatic defect of the transversalis fascia at the internal ring. Metabolically, the condition worsens as adjacent abdominal wall connective tissue degenerates over time.
- Likewise cystocele is a protrusion of the bladder through the fascial envelope of the vagina, usually at the site of childbirth injury (rather than at a congenital weakness). Formation also involves a mechanical event (namely, a 'site specific' tear in the fascial hammock) and a metabolic event (namely secondary collagen weakness in adjacent endopelvic connective tissue - eventually resulting in the onset of symptoms).

Over the last hundred years general surgeons have lowered the failure rate for inguinal hernia repair from 30% to <2%, mainly by the use of a group of surgical rules called the "hernia principles". Logic would therefore suggest that these same surgical rules may help gynaecologists improve their prolapse repair outcomes.

The "hernia principles" resolve into two groups.

- For suture-only repair, it was traditional to sew the conjoint tendon and adjacent transversalis fascia to the inguinal ligament using permanent suture. This was broadly successful, but excessive wound tension often resulted in failure.
- However, some 20 years ago, surgeons found that the best way to resolve the

problem of wound tension was through the use of a mesh implant. Serendipitously, this strategy also reinforced any weakness in the adjacent connective tissue, and thus delivered markedly better results.

**Material & Methods:** In reviewing material and methods, there were two basic research hypotheses.

- First, that a mechanically sound correction of any transverse and paravaginal defects should produce a durable cystocele repair.
- Second, that obtaining truly optimal results also requires close adherence to the "hernia principles".

Study design was a retrospective comparative review of 169 paravaginal repairs over 9 years — 49 of these were done abdominal and 120 vaginally. The vaginal group comprised 34 'suture only' repairs, 29 paravaginal repairs using an autograft of vaginal muscularis, and some 57 done with an SIS xenograft. Hence, this case distribution showed a good spread of surgical methods, some of which were analogous to 'suture only' herniorrhaphy and others that were analogous to a modern 'tension-free' mesh repair.

Main measures of outcome were recurrence of an anterior segment prolapse and any major complications. Success was defined as either ideal (meaning stage 0) or satisfactory (stage I laxity) of the anterior vaginal wall. Failure was any cystocele stage II, irrespective of whether it was symptomatic.

**Results:** Study results confirmed the first hypothesis, namely, that the strategy of 'site specific' repair would be expected to provide a durable cystocele repair. The Kaplan Meyer graph of outcomes from the entire group of 169 women shows that both abdominal and paravaginal repair were very durable, up to 9 years.

- APVR was slightly better, 92% v 84%. This probably reflects the fact that, at abdominal repair, sutures are placed in relatively strong connective tissue, that is well removed from the actual site where the pubocervical fascia had torn.
- Conversely, sutures at vaginal paravaginal repair are placed into the torn edge of the

# Pelvic Floor Surgery in Perspective

Method	How well this operation satisfies the 'Hernia Principles'	Number	Failures	Success Rate
Suture only' VPVR	Attempts to align fascia, but is relatively inaccurate, tends to re-create wound tension & does not compensate for tissue weakness	34	12	65%
VPVR + autograft	While not perfect, a vaginal fibromuscularis autograft relieves wound tension & compensate tissue weakness to some extent.	29	5	83%
APVR, no bolster	Accurate method of re-approximating avulsed vaginal PCF back onto Obturator Internus fascia without tension, but does not fulfil principle of placing a bolster.	49	4	92%
VPVR + SIS overlay	Use of a remodeling bolster prevents any tension, & SIS onlay graft more than compensates for any inaccuracy in fascial edge re-approximation	57	1	98%
	<b>TOTAL</b>	<b>169</b>	<b>22</b>	<b>86%</b>

pubocervical fascia, at the very spot where Host connective tissue is at its weakest.

*This cohort of 169 women represents an 8 year sample. Data for the lecture will be based on a 10 year sample of 260 women. Actual totals will change but conclusions are qualitatively similar.*

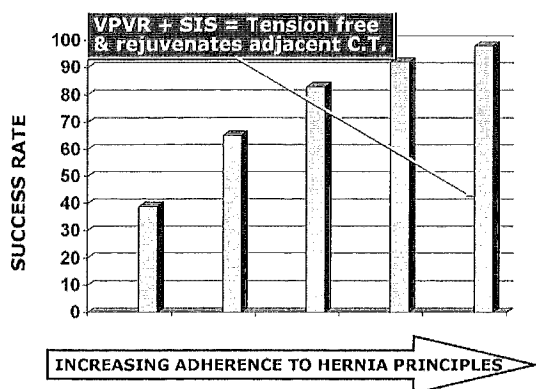
Study results also confirmed the *second hypothesis*, namely that treatment outcome would be expected to improve with increasing conformity to the 'hernia principles'. The second Kaplan Meyer graph is a subgroup analysis of the 120 women who had their paravaginal repairs done by the vaginal route.

- The use of any type of biomaterial gave more durable results than the 'suture only' technique.

- However, an SIS xenograft was much better – 98% vs 83% vs 65%.

The extent to which prolapse repair parallels hernia repair is well shown in this final bar graph. The different surgical techniques are ordered, according to their adherence to 'hernia principles'.

- Anterior repair adheres to none of these hernia rules, and delivers the worst results.
- 'Suture only' paravaginal repair meets the criterion of being a 'defect specific technique', but it does not resolve the issues of wound tension or collagen weakness in nearby Host connective tissue.
- Use of a vaginal wall autograft partially reduced wound tension. However, vaginal muscularis is not an ideal implant, in that it does not remodel. Hence, its ability to rejuvenate weak Host connective tissue was muted.
- Conversely a VPVR repair with a bridging graft of SurgiSIS is completely tension-free. And the SIS remodels into a strong and permanent layer of new Host connective tissue. As such, it fulfills all of the 'hernia principles', and is in fact exactly analogous to a modern day prosthetic hernioplasty.



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## Anterior Vaginal Prolapse – Laparoscopic Paravaginal Repair

Thursday 8 November / Session II / 1130-1150

O'Shea R, Seman E, Cook J, Behnia-Willison F,  
Lam C, Vanspauwen R, Ayres H

Successful repair of anterior compartment prolapse has proved elusive. Anterior colporrhaphy has proved to have a high failure rate. Paravaginal repair was repopularised initially as an open procedure. Our experience has been with the laparoscopic approach. We present a prospective observational study. All patients were treated between February 1999 and December 2006, were assessed preoperatively using the Pelvic Organ Prolapse Quantification (POPQ) system and subsequently assessed, postoperatively, on an annual basis thereafter. A total of 303 underwent laparoscopic paravaginal repair. A laparoscopic Burch colposuspension was performed in 122 cases. With a mean age of 60 years (31-89), mean weight 79kg (48-120), mean parity 2.9 (0-9), the average hospital stay was 4.2 days.

With follow-up up to five years, objective success rate was 75%. Of the initial failures, 20 patients underwent a midline cystocele repair, producing a two stage success rate of 83%. In addition 37 patients had an asymptomatic midline cystocele and declined further surgery, producing a success rate, in this group overall of 88%. These results are in keeping with our initial published data<sup>1,2</sup>. Laparoscopic paravaginal repair, in conjunction with midline cystocele repair produces highly acceptable results.

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## Mesh sacral colpopexy (open vs laparoscopic ) procedures and results

Thursday 8 November / Session III / 1330-1350

Cario G

Comparing laparoscopic and abdominal Mesh Sacral Colpopexy is like comparing laparoscopic Cholecystectomy to open, laparoscopic removal of ectopic to open or dare I say laparoscopic Burch Colposuspension to open. If done correctly it should be an identical procedure with no shortcuts and identical outcomes with all of the major advantages of minimally invasive surgery and none of the disadvantages. IT IS THE SAME OPERATION.

I will present a short video of the procedure the way it is performed by 2 of our SWEC surgeons outlining the key steps that are crucial to achieve the desired result.

Long term follow up after Abdominal Sacral Colpopexy will be reviewed. There have been 19 reported series between 1976 and 1996 looking at cure rates between 85-100% with low complication rates. As expected the ever enlarging reported series for the laparoscopic approach are almost identical. The largest series of mesh sacral colpopexies ever published reviewed the results of 363 laparoscopic cases (Rozet et al 2005) with a success rate of 96% and a 6% rate of constipation and obstructed defaecation and a 6% latent stress incontinence rate. Fiedela et al (2005) published a comparative cohort study comparing the laparoscopic and abdominal approach and once again found similar results in both groups. More recently Elliott et al (2006) published their series of laparoscopic cases performed with robotic assistance with a 97% success rate. In all these series both laparoscopic and abdominal the results are excellent and the complication rates low. In



particular it is interesting to note that unlike the newer vaginal mesh procedures the dyspareunia rates and mesh erosion rates are very low.

Given that the mesh sacral colpopexy is the "gold standard" for apical prolapse then it is clear that the Laparoscopic approach should now be considered the "platinum standard".

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## Sacrospinous colpopexy what is the best technique?

Thursday 8 November / Session III / 1410-1425

Taylor J

There are many techniques described for the operation of sacrospinous colpopexy. Some are more difficult than others, but they all have the same end point for correction of prolapse of the vaginal vault.

We will look at the problems of the procedure, its complications, the different materials and their strengths and weaknesses, the methods of suture placement, and compare the operation to other procedures designed to achieve the same aim.

Most reports are of an anecdotal nature, but still provide useful different techniques to resolve level I problems.

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## Native tissues options for posterior vaginal repair: Colporrhaphy

Thursday 8 November / Session IV / 1530-1545

Cardozo L

**Aims:** To review current evidence and best practice in correcting posterior vaginal wall prolapse with colporrhaphy.

**Results:** Traditionally urogynaecologists perform posterior colporrhaphy through the transvaginal route and there is some evidence

to suggest that this may be superior to the transanal route. Traditional levator ani plication posterior repair is associated with a high incidence of dyspareunia and apareunia as it restricts the capacity of the lower vagina. On the other hand fascial posterior repair is associated with no significant adverse effects on bowel, bladder or sexual function whilst significantly improving POP-Q parameters Ap and Bp.

**Conclusion:** Transvaginal fascial posterior repair would appear to be the best option for colporrhaphy in terms of native tissue options as it is associated with better anatomical results, improved overall patient satisfaction and no significant adverse effects on sexual, bowel or bladder function.

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## Native tissues options for posterior vaginal repair: Site Specific Posterior Pelvic Floor repair

Thursday 8 November / Session IV / 1545-1600

Behnia-Willison F, Seman El, Cook J, Lam C, O'Shea RT, Ayres H, Vanspauwen R

**Objective:** To assess the technical ease, safety and efficiency of site specific posterior repair in the treatment of posterior vaginal wall prolapse.

**Method:** Prospective series of 141 women over a period of 5 years (2002-2007) undergoing site specific repair of whom 89 had posterior compartment repair. Overall, the mean age was 66 yrs (32.-90) and weight 72.6kg (50-116). All women were assessed pre and post op with the pelvic organ quantification (POPQ) system.

**Results:** Overall, the mean operation time was 114 min (40-240) and average hospital stay

was 3.7 days (2-10), however for posterior vaginal repair the operating time was less than 60 min. Major post op complications occurred in 3 cases, of which 1 related to the posterior compartment defect repair.

Overall, objective success rate was 81%, of the recurrence (17 anterior, 6 posterior and 7 uterine prolapse). Nonetheless there was a greater than 90% success rate for the posterior compartment repair. The failure rate were associated with the use of absorbable sutures and haematomas

**Conclusion:** Site specific vaginal repair is safe and effective and should supersede midline placcation. It is most readily applied to the posterior compartment.

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## Native tissue options for posterior vaginal prolapse: Laparoscopic suture repair

Thursday 8 November / Session IV / 1600-1615

Lam A

### Objectives:

- To examine anatomical basis for the laparoscopic surgical technique
- To analyse the results
- To consider the place of laparoscopic suture repair in the management of posterior vaginal wall prolapse

### Setting:

- Tertiary referral unit
- Extensive experience of over 900 cases of laparoscopic pelvic floor repairs

### Anatomical considerations:

- Posterior vaginal wall prolapse occur as a result of fascial defects and damage to the levator muscular support
- A combination of fascial defects is commonly found
  - with disruption of the uterosacral suspension at level I
  - detachment of endopelvic fascia from levator ani fascia at level II
  - and disruption to the perineal body at level III

Laparoscopic technique is indicated for:

- level II repair - reattachment of lateral posterior vagina to levator ani fascia
- level I suspension – resuspension of upper vagina to uterosacral ligaments
- where the quality of native connective tissues is poor, mesh augmentation with either absorbable or permanent materials can be incorporated to strengthen the repair

### Surgical technique:

- video presentation

Contraindications to laparoscopic pelvic floor surgery:

- contraindications to general anaesthesia
- contraindications to laparoscopy
- severe intra-abdominal adhesions

### Results:

- success rates exceed 90 percent with greater than 12 months follow-up
- complications – uncommon, one enterotomy, no ureteric injury, no rectal injury
- suture erosion – 1 to 2 percent with Ethibond sutures

### Conclusion:

- laparoscopic pelvic floor repair is a safe and effective surgical option for posterior vaginal wall prolapse, with success rates exceeding 90 percent in long-term follow-up
- the major benefits of the laparoscopic approach include low morbidity, very low risk of foreign body reaction, reduced vaginal scarring, maintenance of vaginal capacity for normal coital function

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## Repair of primary and recurrent posterior defects: in perspective

Thursday 8 November / Session IV / 1635-1705

Carey M

Each year in the USA, approximately 250,000 women undergo surgery for pelvic organ prolapse (POP). Within 4 years, 30% undergo

repeat POP surgery. Currently there is no consensus on optimal surgery for repair of rectoceles. Mesh and biological graft usage is increasing and about 25% of POP procedures in US are performed with mesh or graft augmentation and over 60% of gynaecologists report having used a synthetic or biological graft during prolapse surgery. Colorectal surgeons will increasingly perform surgery for rectoceles.

In the US, cystocele repair accounts for 17% of cases, rectocele repair 15%, combined cystocele and rectocele repair 56% and vault repair 12%. Therefore, 71% of operations for pelvic organ prolapse involve a rectocele repair. Hysterectomy is performed during surgery for POP in 62% of cases and laparoscopy is used in only 1.2% of cases.

#### Surgery for posterior compartment defects:

##### Approach

- Vaginal, Abdominal, Laparoscopic, Transperineal/Transanal

##### Technique

Colporrhaphy, site-specific defect approach, colpoctysis, mesh or graft reinforcement, new surgical kits (Posterior IVS, Prolift, Apogee), transanal repairs (including Starr procedure)

##### Hysterectomy or uterine conservation?

##### Concomitant anti-incontinence surgery

- Yes/No? Which one?

#### Selection of surgery for rectocele:

- Training and experience of surgeon
- Patient factors (age, BMI, sexual activity, medical disease)
- Previous surgery performed
- Examination findings (stage of POP, short and narrow vagina)
- Anorectal investigations (manometry, endorectal ultrasound)
- Evidence base
- Cost
- Influence of industry

#### Major challenges for POP surgery:

- Reduction in recurrences and complications
  - Surgical training, prostheses, standardized procedures
- Aging population
  - 45% increase in demand for POP surgery
- Urgent need for improved studies to develop an understanding of:
  - Relationship between symptoms and examination findings
  - Indications for POP surgery (including use of prostheses)
  - Impact of surgery on symptoms and examination findings
  - Impact of surgery on sexual function

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## IMPORTANT DATES TO REMEMBER

### 11-14 MARCH 2008

AGES 2008 XVIII ANNUAL SCIENTIFIC MEETING:  
10<sup>th</sup> WORLD CONGRESS ON ENDOMETRIOSIS – WCE 2008

**Melbourne**

Register at [WWW.WCE2008.COM](http://WWW.WCE2008.COM)

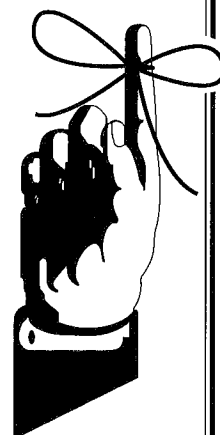
### 7 & 8 AUGUST 2008

AGES PELVIC FLOOR SYMPOSIUM & WORKSHOP IX  
**Sydney**

### NOVEMBER 2008

AGES FOCUS MEETING  
**Perth**

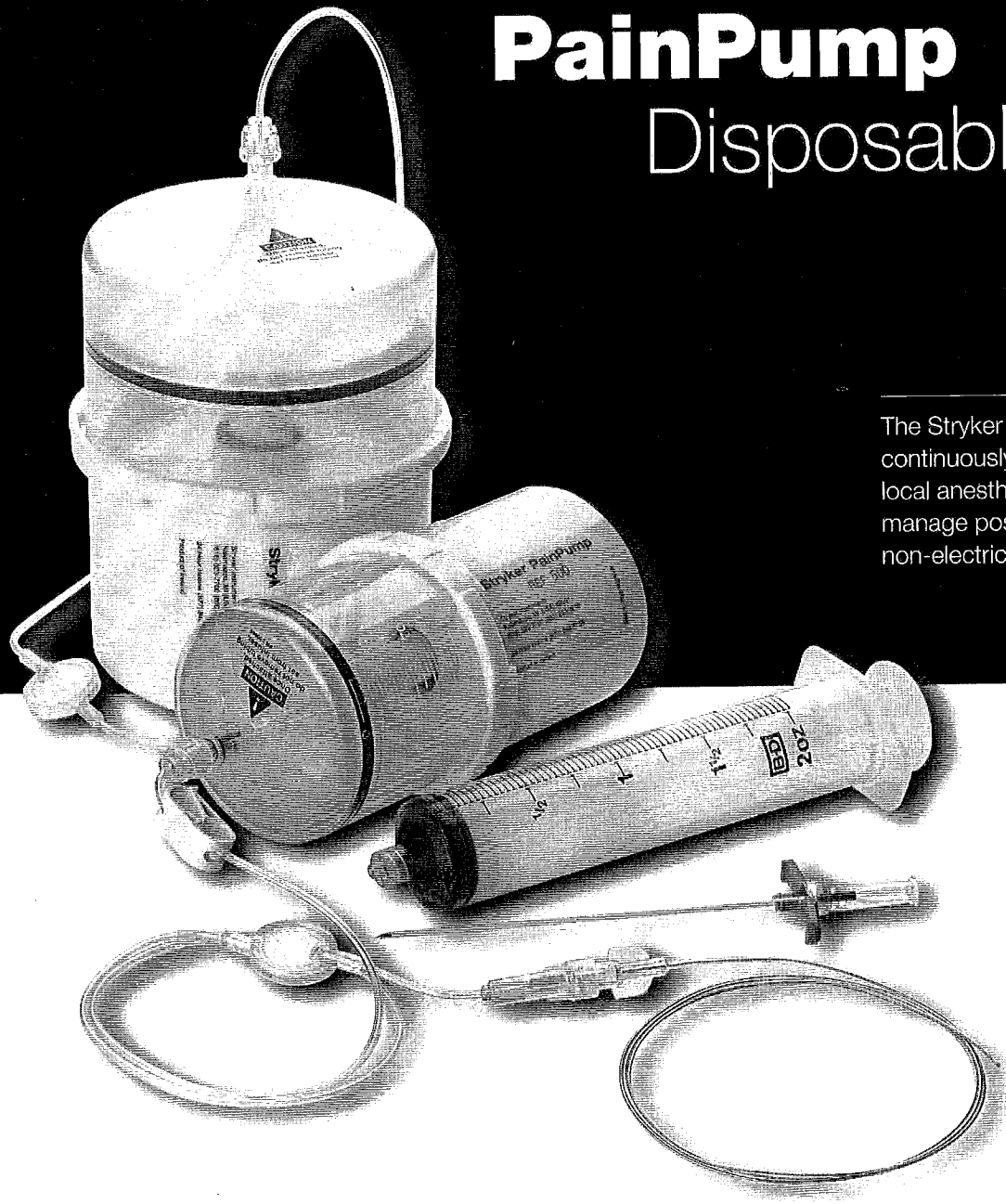
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# *Pelvic Floor Surgery in Perspective*

## *Abstracts Friday*

### **Cystourethroscopy in gynaecology, past, present and future.**

**Friday 9 November / Session V / 1145-1200**

Dwyer PL

Gynaecologists have a long history of interest in the lower urinary tract in the female. Howard Kelly, Professor of Obstetrics and Gynaecology at John Hopkins Hospital in Baltimore, was a pioneer in female urology, developing operations for stress incontinence and vaginal prolapse. During the 1880s in the United States, he also introduced cystoscopy and ureteric catheterisation.<sup>1</sup> His successor at John Hopkins, Guy Hunner, continued his work in female urology and was the first to clearly describe the condition of interstitial cystitis. However, it seems that these skills and interest were lost to most gynaecologists until Jack Robertson pioneered the air cystourethroscope and its use in the evaluation of urinary incontinence and urethral pathology in the 1960s.<sup>2</sup> Another Professor of Gynaecology at John Hopkins, Richard Te Linde, said in 1978 "it is difficult for me to conceive doing first class gynaecology without knowledge of female urology".

However, these men were the exceptions, and expertise in endoscopy of the lower urinary tract was lost to most gynaecologists and is still neglected in the curriculum of gynaecological training programs worldwide. In the requirements for residency programs, certified by the American Board of Obstetrics and Gynaecology there is no mention of training in cystoscopy.<sup>3</sup> The Royal Australian and New Zealand College of Obstetricians and Gynaecologists have a detailed curriculum of requirements for their fellows to achieve by the end of training which includes diagnostic, therapeutic and surgical skills ([www.ranzcog.edu.au](http://www.ranzcog.edu.au)). In obstetrics their fellows are expected to be able to manage urinary incontinence, urinary retention and injury to the urinary tract as a result of pregnancy and delivery. In gynaecology, fellows should be able to investigate and manage urinary incontinence and uterovaginal prolapse, diagnose and plan appropriate

management of gynaecological fistula, and assess and manage women with Urogynecological disorders. Intraoperative surgical skills that are required are, identification of the ureter abdominally intraoperatively; recognise injuries to the ureter, including those which become apparent postoperatively; recognise bladder and bowel trauma during surgery and manage under supervision. There are 58 specific surgical procedures specified with 3 levels of credentialing, namely understand (not perform), perform with assistance and perform unassisted. There are 12 operations under the heading of hysteroscopy surgery and 12 operations under laparoscopic surgery. The only mention cystoscopy gets in the 60 page curriculum document is one line on page 45 that cystoscopy should be able to be performed unassisted. What seems not to be recognised or at least not stated is that to diagnose and manage urinary incontinence, uterovaginal prolapse, urinary fistula and intra-operative urinary tract trauma; a high level of skill in cystourethroscopy is required. This means understanding the equipment and how it is used, what is normal and abnormal in the urinary tract and how to do simple procedures such as bladder biopsy and removing foreign bodies and diagnosing ureteric patency. As well as having this stated in the curriculum of every College or Society of Obstetrics and Gynaecology, a process is needed to implement this into the training programme.

The introduction of stress incontinence procedures has increased the number of gynaecologists again performing cystourethroscopy in their surgical practices. These include the minimally invasive sling procedures (such as TVT) and long needle urethral suspension operations (Stamey or Perera), where cystourethroscopy is integral to the procedure. Postoperative cystoscopy also is being increasingly used to prevent urinary tract complications and lessen the risk of medicolegal consequences.<sup>4</sup> However, because they have little exposure to cystourethroscopy or lower urinary tract disorders during gynaecological training, this has caused new problems. Gynaecologists are frequently faced with cystoscopic findings with which they are unfamiliar. These might be benign conditions

# Abstracts Friday

such as squamous metaplasia or cystitis cystica, where they have had to call an urologist or unnecessarily refer the patient for a second cystoscopy. More importantly, serious conditions such as malignancy may be misdiagnosed or missed through ignorance or incomplete examination.

Therefore cystourethroscopy in the following urogenital conditions will also be briefly reviewed.

- Congenital urogenital anomalies.
- Urethral and periurethral conditions.
- Infective and non-infective cystitis.
- Interstitial cystitis/painful bladder syndrome/bladder pain syndrome.
- Non-neoplastic abnormalities of the bladder
- Malignant conditions of the bladder and urethra.
- Urogenital fistulae.
- Role of cystourethroscopy in urogynecological surgery.
- Intraoperative cystourethroscopy in the prevention and treatment of urinary tract injury in urogynecological surgery.

The art of endoscopy of the lower urinary tract needs to be re-learned by many general gynecologists. Our colleges need to recognise the importance of cystoscopy in pelvic surgery and incorporate this into the training curriculum for gynecologists as well as urologists. Practising gynecologists can be trained in these procedures at special courses by urogynecologists or urologists. This should be supplemented by self-education through journals such as the International Urogynecology Journal and specialist books on lower urinary tract endoscopy and the diagnosis and treatment of lower urinary tract disorders.<sup>5,6</sup> Finally, the regular performance of cystourethroscopy with pelvic surgery will develop experience and medical expertise as well as being of real benefit for patients in the early diagnosis and treatment of urinary tract injury and other urinary conditions.

There is an old medical axiom; more is lost by not looking than not knowing. Endoscopy of the abdomen, pelvis and genital tract was pioneered by gynecologists. By comparison,

diagnostic cystourethroscopy is a relatively safe procedure with low morbidity but still requires a skilled operator with knowledge of cystoscopic equipment and its use, and normal and abnormal lower urinary tract anatomy.

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## What to do when slings fail or are inappropriate?

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Friday 9 November / Session VI / 1300-1320

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Cardozo L

**Aim:** To review management options in the event of sub-urethral sling failure.

**Results:** Sling failure is more common in the presence of mixed incontinence symptoms, stage III or IV prolapse, or previous failed surgery. Following failed surgery, urodynamics is mandatory, and should include urethral pressure profilometry. A wide range of surgical options have been promoted, with no trials comparing alternatives. Conservative options should always be considered before undertaking repeat surgery.

**Conclusions:** Sling failure is uncommon but continues to present a management challenge.

**References:**

Diokno et al. ICS 2007  
[icsoffice.org/default.asp?ReturnUrl=publications/publications\\_home.htm](http://icsoffice.org/default.asp?ReturnUrl=publications/publications_home.htm)

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## Diagnosis and management of occult stress incontinence before and after prolapse surgery

Friday 9 November / Session VI / 1340-1400

Cardozo L

**Aims:** To review current evidence and best practice regarding the investigation of occult or "potential" stress incontinence when considering pelvic organ prolapse surgery.

**Results:** There is very limited evidence that patients with occult stress incontinence have a worse outcome following colporrhaphy. Recent data from randomised controlled trials show no benefit from combined pelvic floor repair with tension free vaginal tape. Despite this the demonstration of occult stress incontinence during urodynamics can be helpful when counselling patients. Sacrocolpopexy with or without occult stress is however associated with high rates of post-operative stress incontinence, and may justify concomitant colposuspension.

**Conclusions:** Evidence is lacking regarding optimal management of occult stress incontinence. All patients should however receive appropriate counselling regarding surgery and outcome.

**References:**

Brubaker et al. ICS 2007 <https://www.icsoffice.org/publications/2007/PDF/0005.PDF>  
 Schierlitz et al. ICS 2007 <https://www.icsoffice.org/publications/2007/PDF/0114.PDF>

## Optimizing hysterectomy techniques to minimize consequent pelvic floor prolapse and dysfunction

Friday 9 November / Session VII / 1430-1445

Maher PJ

Prolapse is not what the gynaecologists wants to see after hysterectomy performed by any method. Various definitions of prolapse have prevented comparisons of various published series. Prolapse can variously be described as pelvic organ prolapse, utero vaginal prolapse, genital prolapse, rectocele, cystocele, urethrocele or vaginal prolapse with uterine descent.

Its incidence is difficult to define as many women do not seek medical advice and clinical examination does not always correlate with symptoms and clinical examination may reveal an incidental prolapse. Studies have estimated that women have a 11% lifetime risk of undergoing a single operation for pelvic floor prolapse or urinary incontinence. The aims of treatment includes relief of symptoms, restoration of normal anatomy, maintenance or restoration of bladder function and maintenance of satisfactory sexual function when necessary.

To perform satisfactory pelvic floor repair it is necessary to have a basic understanding of the normal support of anatomy and pelvic pathophysiology. The pelvic floor support is dependent on the co-ordinated action of a large range of muscles, smooth muscle of the pelvic organs and the connective tissue attachments. Three important recognisms help maintain normal anatomy. Pelvic floor muscles, connective tissue and the vaginal support which is divided into three levels (1), (2) and (3). Damage at different levels of vaginal support results in different types of prolapse.

### Level 1 support

Fracture – results in uterine prolapse or after hysterectomy – vault prolapse. The most common cause of vault prolapse is failure to re-attach the cardinal uterus sacral ligament complex to the pubo cervical fascia anteriorly and the recto vaginal fascia at hysterectomy. The operation of hysterectomy involves

# Abstracts Friday

disruption of level 1 support with disruption of the peri cervical ring and a vision of the utero sacral ligaments. The incidence of post hysterectomy prolapse is quoted as 3.6 per 1000 women years.

Vault prolapse rate increases by a factor of 5.5 times if indication for hysterectomy is prolapse. Prolapse can be minimized by re-attaching the utero sacral ligament cardinal complex to the vault at the time of the primary surgery.

There are diversity of techniques to do this and no technique offers complete the solution. These techniques include abdominal sacro colpopexy, laparoscopic colpopexy, transvaginal sacro spino ligament attachment and utero sacral suspensions. The effectiveness of different approaches will be discussed during the presentation.

It is known from studies that utero-sacral ligaments support a weight between 17 and 19 kilograms before breaking in catoveric studies. It is important for the surgeon to remember that the aim of surgery is to maintain vaginal width and length to restore the upper vagina to its normal anatomical position resting on an intact laevarta plate and retain the ability of the patient to have successful coitus. If this does not appear relevant at the time of initial consultation it may become so in the future.

Author address: Associate Professor Peter Maher, Mercy Hospital for Women. Melbourne.

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## Uterine preservation or hysterectomy during POP repair – when and how?

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Friday 9 November / Session VII / 1445-1500

Dwyer PL

In a review of surgery performed for pelvic organ prolapse in the United States of America in 1997 by Brown et al<sup>1</sup> vaginal hysterectomy with or without vaginal repair was performed in 36% of all prolapse operations. A further 6% had abdominal hysterectomy performed as part of the prolapse surgery. Prolapse is the most common indication for hysterectomy in women over the age of 50 years. The reason for

uterine removal is to identify the uterosacral/lateral cervical complex so that they can be reattached onto the vaginal vault to resupport the apex of the vagina and treat prolapse. Other advantages of hysterectomy is the removal of a hypertrophic cervix which frequently accompanies prolapse and finally to treat or avoid uterine pathology in the future. However, many women have concern regarding hysterectomy and cannot understand why it is necessary to remove an otherwise healthy organ. Some women wish to retain their fertility and are concerned about decreased sexual satisfaction if the uterus is removed.

Hysterectomy for uterovaginal prolapse can be performed vaginally with a McCall procedure or abdominally with shortening and reattachment of the uterosacral ligaments to the vaginal vault or with abdominal colposacropepy using synthetic mesh. Uterine conservation in women with uterovaginal prolapse can be performed vaginally with a sacrospinous hysteropexy (plus or minus mesh) or a Manchester repair with or without cervical amputation. Uterovaginal prolapse surgery with uterine conservation can also be performed abdominally by plication of the uterosacral ligaments. The uterus can be either directly sutured to the sacrum or indirectly attached using synthetic mesh with a sacrocolpohysteropexy. Finally, where sexual function is no longer required a colpocleisis can be performed.

The medical literature addressing the surgical repair of uterovaginal prolapse with uterine preservation will be reviewed. The results of a recent survey on the surgical treatment of prolapse in Australia and the UK will also be discussed in the context of current best practice.

### Conclusion:

The current literature suggests that uterine preservation during surgery for uterovaginal prolapse may be an option in appropriately selected women who desire it. However, most of the studies performed to date are retrospective and have short term follow-up. There is a real need for prospective comparative studies comparing anatomical and functional results using validated standardized assessments with long-term follow-up. There is



be no one operation that will suit all clinical situations, so surgery will need to be tailored to suit patients specific needs.

#### References:

Brown J S et al., American Journal of Obstetrics and Gynecology 2002

Author address: P L Dwyer. Department of Urogynecology, Mercy Hospital for Women, Melbourne

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### Patient oriented goals

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Friday 9 November / Session VIII / 1600-1615

Cardozo L

**Aims:** To review the use of patient oriented goals as a clinical tool and as a research outcome measure.

**Results:** Pelvic organ prolapse is variably associated with lower urinary tract symptoms, bowel symptoms, and sexual dysfunction. Patients' expectations for improvement in each of these areas modifies subjective reporting of surgical outcome. Patients' goals for surgery differ markedly from surgeons' goals for the same procedures. Allowing patients to express goals for prolapse surgery facilitates effective doctor patient communication, and gives clinicians better insight into the disease experience. The validity of patient oriented goals as a research outcome measure is not yet established.

**Conclusions:** Patient oriented goals may be a helpful clinical tool, and in the future may prove to be a useful addition to the research armoury.

#### References:

Patient-centered goals for pelvic floor dysfunction surgery: long-term follow-up. Hullfish KL, Bovbjerg VE, Steers WD. Am J Obstet Gynecol. 2004 Jul;191(1):201-5.

EGGS for patient-centered outcomes. Brubaker L, Shull B. Int Urogynecol J Pelvic Floor Dysfunct. 2005;16(3):171-3

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### Measures to avoid and defer surgery in women with genital prolapse or urinary stress incontinence

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Friday / 9 November / 1615-1630

Burton G

General measures can be undertaken to manage reversible conditions that cause or contribute to prolapse or urinary incontinence. These include diagnosis and treatment of UTI's, management of constipation, assessment of medications, diagnosis of metabolic disorders including diabetes, management of fluid intake, treatment of congestive cardiac failure and venous insufficiency, management of confused and delirious states, improvement of mobility and management of atrophic vaginitis.

Prolapse can be managed conservatively by pelvic floor exercises, lifestyle modification and the use of mechanical devices. There are only three randomised trials studying pelvic floor exercises and lifestyle modification. There is a trend to improvement in the conservative groups when compared to controls but the studies are difficult to compare and vary in power and randomisation. There are no randomised studies looking at the role of mechanical devices in the treatment of genital prolapse. There are two types of pessaries – support pessaries and space occupying pessaries and these are used for different clinical situations although there are no trials comparing outcomes.

Urinary stress incontinence can be managed conservatively by pelvic floor muscle training, biofeedback, vaginal cones, neuromuscular electrical stimulation, magnetic stimulation, devices and medications. Many trials have shown that if pelvic floor muscle training is done repetitively, daily, over the long term and targeted to fast and slow twitch muscle fibres then the USI is improved and in all comparison studies it is either the best or equal best conservative method. Although rigorous trials are lacking, the other conservative treatments all work to an extent. In some studies when these other treatments are combined together with pelvic floor training there is an even greater general improvement or a marked improvement in a particular patient subgroup.

# Abstracts Friday

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## Designer vaginas

Friday 9 November / Session VIII / 1700-1720

Cardozo L

**Aims:** To review the evidence base for female genital cosmetic surgery. This area includes all procedures carried out for aesthetic purposes, but excludes female genital mutilation.

**Results:** The great variety in the normal dimensions of the female external genitalia creates ethical and technical uncertainties

regarding surgery to normalise its appearance. Even for well established procedures, such as reduction labiaplasty, interest has outstripped high quality evidence of efficacy and safety. This makes it especially difficult to advise women of the risks and benefits. For all gynaecological procedures that are requested primarily for aesthetic, rather than medical reasons, research is needed focusing on quality of life, sexual function, and patient-centred outcomes.

**Conclusions:** In the absence of clear evidence the surgeon must be guided by ethical standards, personal experience, and the specific needs of their patients.

### References/Reading:

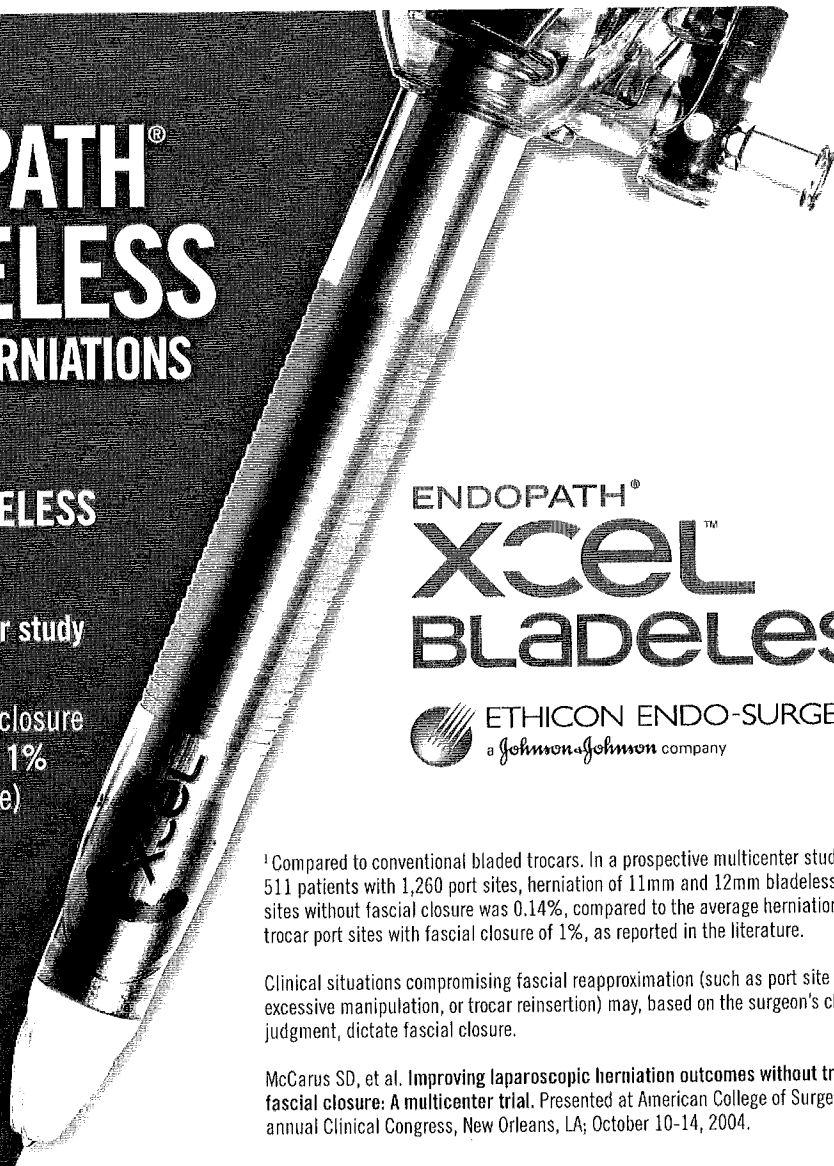
Cartwright R and Cardozo L Female Genital Cosmetic Surgery, in Textbook of Reconstructive Urologic Surgery, Informa 2007

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McCarus SD, et al. Improving laparoscopic herniation outcomes without trocar site fascial closure: A multicenter trial. Presented at American College of Surgeons 90th annual Clinical Congress, New Orleans, LA; October 10-14, 2004.

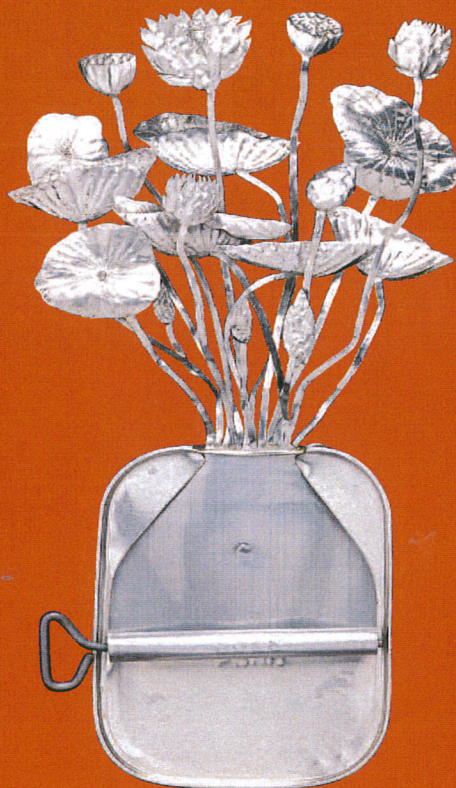
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