Australian
Gynaecological
Endoscopy
Society Ltd

AGES PELVIC FLOOR SYMPOSIUM & WORKSHOP X

2009

THE OLD
THE NEW
THE PROVEN

THE HORIZON

International Faculty:
Professor Jan Deprest Belgium
Professor Mickey Karram USA

7 & 8 AUGUST 2009
Crown Promenade/Crown Towers
MELBOURNE AUSTRALIA

Sponsors and Exhibitors

AGES gratefully acknowledges the support of the following companies:

stryker®

Platinum Sponsor of AGES

Johnson & Johnson MEDICAL

Major Sponsor of AGES

AMS Solutions for Life

STORZ KARL STORZ—ENDOSKOPE

Major Sponsors of the AGES Pelvic Floor Symposium and Workshop X 2009

Exhibitors

Covidien
Hologic (Australia)
Olympus Australia

Australian Medical Couches
B Braun Australia
Boston Scientific
Cook Medical Australia
Device Technologies
Endotherapeutics
Femcare
Fisher & Paykel Healthcare
InSight Oceania
Investec Experien
Ipsen
Medtronic Australasia
Sonologic
Sydmed

AGES PELVIC FLOOR SYMPOSIUM & WORKSHOP X

2009

Contents

7 & 8 AUGUST 2009
Crown Promenade/Crown Towers
MELBOURNE AUSTRALIA

AGES Board

Alan Lam	President
Jim Tsaltas	Vice President
Christopher Maher	Secretary
Anusch Yazdani	Treasurer
Robert Ford	
Kym Jansen	
Michael McEvoy	
Harry Merkur	
Anna Rosamilia	
Stuart Salfinger	
Michele Bender	Executive Director

Organising Committee

Jim Tsaltas	Vic	Conference Chair
Anna Rosamilia	Vic	Scientific Chair
Alan Lam	NSW	
Christopher Maher	Qld	
Robert O'Shea	SA	
Marcus Carey	Vic	
Raphael Kuhn	Vic	

AGES Secretariat

Conference Connection
282 Edinburgh Road
Castlecrag
SYDNEY NSW 2068
AUSTRALIA

Ph: +61 2 9967 2928
Fax: +61 2 9967 2627
secretariat@ages.com.au

Invited Faculty

Jan P Deprest	USA
Mickey Karram	Belgium
Michael Kamm	Vic

Faculty

Salwan Al-Salihi	Vic
Mark Ashton	Vic
Marcus Carey	Vic
Fay Chao	Vic
Alison De Souza	Vic
Caroline Dowling	Vic
Peter Dwyer	Vic
Geoffrey Edwards	Vic
Michael Kamm	Vic
Alan Lam	NSW
Joe Lee	Vic
Annie Leong	Vic
Jeanette Lim	Vic
Yik Nyok Lim	Vic
Christopher Maher	Qld
Helen O'Connell	Vic
Robert O'Shea	SA
Anna Rosamilia	Vic
Jim Tsaltas	Vic

Membership of AGES

Membership application forms are available from the AGES website or from the AGES Secretariat

Dear Colleagues,

We warmly welcome you to the 10th anniversary AGES Pelvic Floor Meeting entitled 'Pelvic Floor Surgery – the old, the new, the proven, the horizon' to be held in Melbourne on 7 and 8 August 2009. The organising committee has put together an excellent scientific and social program.

The scientific program features the latest in pelvic floor surgery. The program has a major scientific and clinical component as well as featuring live surgery.

The faculty is made up of an outstanding group of international and local speakers. Our international speakers are Professor Mickey Karram and Professor Jan Deprest. Professor Karram is from Cincinnati Ohio and is the current editor of the International Urogynaecology Journal. He is a key leader in pelvic floor surgical training, has published extensively and has been an editor of a number of urogynaecology text books. Professor Karram has also been involved with development and assessment of many of the new pelvic floor surgical techniques. Professor Deprest is from Leuven in Belgium. Jan has spent many years performing laboratory based research into pelvic floor surgery which has translated into clinical applications that are currently used in pelvic floor surgery. He has a particular interest in laparoscopic surgery for posterior wall defects, the place of ultrasound in the assessment of pelvic floor defects and the place for mesh in pelvic floor surgery. Jan has extensively studied the place of bio material in laboratory based experiments. He is currently looking at stem cells and is also doing research in ante natal foetal therapy.

The Scientific Committee has also invited Professor Michael Kamm, Professor of Gastroenterology at St Vincent's Hospital Melbourne. Professor Kamm spent 22 years as Head of St Mark's Hospital Gastroenterology in London. He has done a great deal of work in early perineal trauma. He will be presenting his data in this most relevant area for practising obstetricians and gynaecologists.

Our invited speakers are complemented by an Australian faculty with a wide interest in the science and the surgery for the management of pelvic floor problems.

We are also including free communications to allow our younger and upcoming gynaecological surgical colleagues to present the work that they have been performing in Australia.

On behalf of the local organising committee and the AGES Board, we hope you will find this landmark meeting stimulating and enjoyable.

Jim Tsaltas	Anna Rosamilia	Chris Maher	Alan Lam
Conference Chair	Scientific Chair	AGES Pelvic Floor Committee Chair	AGES President

PR&CRM/CPD Points

COMPLETION OF THE PRE AND POST QUESTIONNAIRES: 5 PR&CRM POINTS

The Royal Australian and New Zealand College of Obstetricians & Gynaecologists (RANZCOG) approved Pre- and Post-Questionnaires are comprised of a number of multiple choice questions from lectures given on Friday 7 August and Saturday 8 August.

The Pre-Questionnaire is to be handed in at the registration area by morning tea on Friday 7 August.

The Post-Questionnaire is to be handed in at the close of the meeting on Saturday 8 August.

No exceptions can be made to these deadlines.

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

FULL ATTENDANCE 16 CPD POINTS
ATTENDANCE – 7 AUGUST 8 CPD POINTS
ATTENDANCE – 8 AUGUST 8 CPD POINTS

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

AGES Awards

AGES strongly encourages Free Communications and AU$500 prizes will be awarded for two presentations at this Conference.

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 8 August.

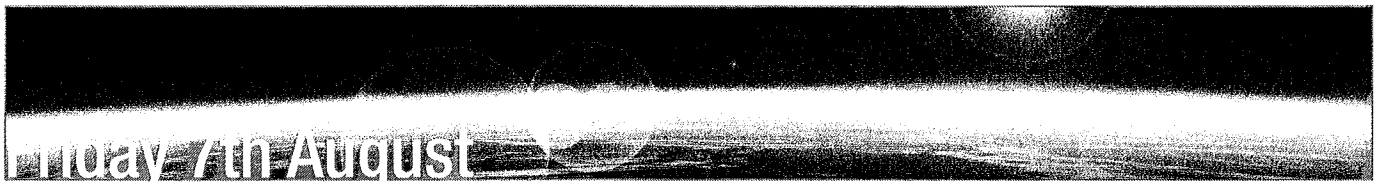
Conference Inclusions

THE OLD, THE NEW, THE PROVEN, THE HORIZON

Registration fees include:

- Attendance at all Conference sessions at Crown Promenade, Melbourne, including live surgery transmitted from Monash Medical Centre
- Conference satchel and all Conference publications
- Conference lunches, morning and afternoon teas on Friday 7 and Saturday 8 August

AGES PELVIC FLOOR SYMPOSIUM & WORKSHOP X **2009** PROGRAM



0730-0800 REGISTRATION

DAY ONE – INCONTINENCE

Crown Promenade Hotel
Promenade Room

0800-0815 Welcome — J Tsaltas, A Lam
PR&CRM Points – Pre-Questionnaire — R Ford

0815-1030 SESSION 1 INCONTINENCE
Chairs: J Tsaltas, A Lam
Sponsored by Stryker

0815-0830 Overview of female urinary incontinence — A Rosamilia
0830-0850 Clinical assessment and 'simple urodynamics' — J P Deprest
0850-0905 Fluoroscopic 'pure' urodynamics — H O'Connell
0905-0920 Cystoscopy is a simple and important investigation — P L Dwyer
0920-1000 Midurethral slings:
TVT – simply the best? — M P Carey
Obturator slings – simply safer? — J P Deprest
1000-1030 KEYNOTE LECTURE
Chair: A Rosamilia
The evolution of female urinary continence surgery — M Karram

1030-1100 Morning Tea and Trade Exhibition

1100-1300 SESSION 2
WHEN SIMPLE THINGS GET COMPLICATED
Chairs: A Yazdani, M McEvoy
Sponsored by Johnson & Johnson Medical

When midurethral slings fails – persistent stress urinary incontinence
1100-1115 Colposuspension or repeat midurethral sling? — Y Lim
1115-1135 Role of rectus sheath sling and injectables — M Karram
1135-1150 Simple protocol for overactive bladder — A De Souza
1150-1205 When simple measures don't work – Botulinum toxin and neuromodulation — J Lee
1205-1220 When midurethral slings cause voiding dysfunction — G Edwards
1220-1235 Perineal trauma — A Leong
1235-1300 Bowel dysfunction — M Kamm

1300-1400 Lunch and Trade Exhibition

1400-1515 SESSION 3 LIVE SURGERY
Moderators: C Maher, H Merkur
Sponsored by Stryker

1400-1515 Live transmission from Monash Medical Centre (two theatres)
Surgeons: M Karram, J P Deprest, P Dwyer, M Carey, A Rosamilia, G Edwards

Demonstration of both laparoscopic and vaginal procedures for incontinence and prolapse

1515-1545 Afternoon Tea and Trade Exhibition during Live Surgery

1545-1700 SESSION 3 LIVE SURGERY, Continued
Moderators: J Tsaltas, R O'Shea
Sponsored by Stryker

1545-1700 Live transmission from Monash Medical Centre (two theatres)
Surgeons: M Karram, J P Deprest, P Dwyer, M Carey, A Rosamilia, G Edwards

Demonstration of both laparoscopic and vaginal procedures for incontinence and prolapse

1900 for **1930** **GALA DINNER**
CHURCH ST ENOTECA, 527 CHURCH ST RICHMOND. PH 03 9428 7898

1830 **Complimentary coach transfers:** Please meet in the Main Lobby of Crown Promenade or in the Atrium Lobby of Crown Towers.

DAY TWO – PROLAPSE

Crown Promenade Hotel
Promenade Room

0800-0900 SESSION 4 OVERVIEW OF PELVIC PROLAPSE

Chairs: C Maher, R Kuhn
Sponsored by Karl Storz Endoscopy

0800-0815	Overview of pelvic organ prolapse	M Carey
0815-0830	Assessment and simplified POPQ	S Al-Salihi
0830-0845	Pessaries, do they have a place?	F Chao
0845-0900	Cochrane review: surgery for pelvic organ prolapse	C Maher

0900-1040 SESSION 5 THE CURRENT

Chairs: A Lam, P Dwyer
Sponsored by American Medical Systems

0900-0915	Traditional colporrhaphy	R O'Shea
0915-0935	Intraperitoneal high uterosacral ligament suspension	M Karram
0935-0950	Extraperitoneal uterosacral ligament suspension	P Dwyer
0950-1005	Apogee/Perogee: techniques and pitfalls	Y Lim
1005-1020	Prolift: techniques and pitfalls	G Edwards
1020-1040	'The Simple': colpocleisis – indications and techniques	M Karram

1040-1110 Morning Tea and Trade Exhibition

1110-1215 SESSION 6 THE LAPAROSCOPIC

Chairs: G Edwards, M Carey
Sponsored by Johnson & Johnson Medical

1110-1125	Laparoscopic solutions when 'simple kit procedures' produce unintended complications	A Lam
1125-1145	Laparoscopic sacralcolpopexy: simplifying the learning curve	J P Deprest
1145-1200	Laparoscopic sacrocolpopexy: the evidence	C Maher
1200-1215	Laparoscopic anterior compartment repair: is there still a place?	R O'Shea

1215-1315 Lunch and Trade Exhibition

1315-1430 SESSION 7 THE SCIENCE

Chairs: J Tsaltas, R Ford
Sponsored by Karl Storz Endoscopy

1315-1345	KEYNOTE LECTURE Chair: C Maher Synthetic and biological grafts in pelvic floor surgery: science and clinical practice	J P Deprest
1345-1400	Synthetic and biological grafts in pelvic floor surgery: imaging	J Lim
1400-1415	Prosima	M Carey
1415-1430	Pelvic floor surgery - the past, the present, the future	M Karram

1430-1530 SESSION 8 FREE COMMUNICATIONS
FREE COMMUNICATIONS I

Chairs: H Merkur, Y Lim
Sponsored by American Medical Systems
Promenade Room

1430-1440	Laparoscopic removal of mesh used for vaginal prolapse Ford R, Khong S-Y, Lam A
1440-1450	Comparison of outcomes following surgery using the anterior-Prolift and Perigee systems in women with pelvic organ prolapse Feiner B, O'Rourke P, Maher C
1450-1500	Surgisis™ for pelvic floor prolapse repair: outcomes and complications in 54 cases Khong S-Y, Lam A, Markey J, Luscombe G
1500-1510	Are sutures required in vaginal hysterectomy? A randomized control study Wang L, Tan J, Chan KW, Fitz-Gerald A, Tsaltas J
1510-1520	Risk factors of treatment failure of midurethral sling procedure for women with stress urinary incontinence Stav K, Dwyer PL, Rosamilia A, Schierlitz L, Lim YN, Chao F, De Souza A, Thomas E, Murray C, Conway C, Lee J
1520-1530	Repeat synthetic midurethral sling procedure for women with recurrent stress urinary incontinence Stav K, Dwyer PL, Rosamilia A, Schierlitz L, Lim YN, Chao F, De Souza A, Thomas E, Murray C, Conway C, Lee J

Saturday 8 August continued

1430-1530 SESSION 8 FREE COMMUNICATIONS
FREE COMMUNICATIONS II

Chairs: S Salfinger, R Kuhn
Sponsored by Johnson & Johnson Medical
Meeting Room 5-6

1430-1440 **Risk factors for trocar injury to bladder during a midurethral sling procedure – can we predict it?**
Stav K, Dwyer PL, Rosamilia A, Schierlitz L, Lim YN, Lee J

1440-1450 **Midurethral sling procedures for stress urinary incontinence are effective and safe in women over 80 years**
Stav K, Dwyer PL, Rosamilia A, Schierlitz L, Lim YN, Chao F, De Souza A, Thomas E, Murray C, Conway C, Lee J

1450-1500 **Video presentation of excision of a large endometriotic nodule**
Ahmed K

1500-1510 **Prospective randomised double blind study comparing treatment with Botulinum A toxin to placebo for Refractory Painful Bladder Syndrome/IC**
Manning J

1510-1520 **Laparoscopic Uterosacral Ligament Suspension (LUSLS): Its role in the prevention of post hysterectomy vault prolapse**
Cario G, O' Neill A, Rosen D, Chou D

1520-1530 **Laparoscopic high anterior paravaginal repair and Burch colposuspension: the SWEC technique**
Cario G, Rosen D, Chou D, O'Neill A

1430-1530 SESSION 8 FREE COMMUNICATIONS
FREE COMMUNICATIONS III

Chairs: K Jansen, S Al-Salihi
Sponsored by Karl Storz
Meeting Room 7-8

1430-1440 **Laparoscopic uterosacral ligament suspension for the prevention of uterovaginal prolapse associated with Burch colposuspension**
Cario G, Anderson J, O'Neill A, Rosen D, Chou D

1440-1450 **Treatment of anterior compartment prolapse by laparoscopic repair**
Gibberd S, Seman E, O'Shea R, Behnia-Willison F, Cook J

1450-1500 **Do the Advantage slings work as well as the TensionFree vaginal tapes?**
Lim YN, Dwyer P, Muller R, Rosamilia A, Schierlitz L, DeSouza A, Lee J, Thomas E, Murray C, Conway C, Stav K

1500-1510 **Vitamin B in cystoscopy – a pilot study**
Fernando S, Dowling C, Rosamilia A

1510-1520 **Comparison of the safety and the clinical efficacy of laparoscopic saropexy and total Prolift in the management of pelvic organ prolapse**
Choy R, Lam A

1520-1530 **Use of Surgisis mesh in the management of Mesh Erosion into the vagina**
Khong S-Y, Lam A

1530-1600 **Afternoon Tea and Trade Exhibition**

1600-1700 SESSION 9 WHEN SIMPLE THINGS GET COMPLICATED

Chair: A Rosamilia
Sponsored by Stryker

1600-1700 **Challenging cases: panel discussion**

Panel: M Karram, J P Deprest, A Lam, M Carey, C Maher, A Rosamilia, Colorectal Surgeon, C Dowling

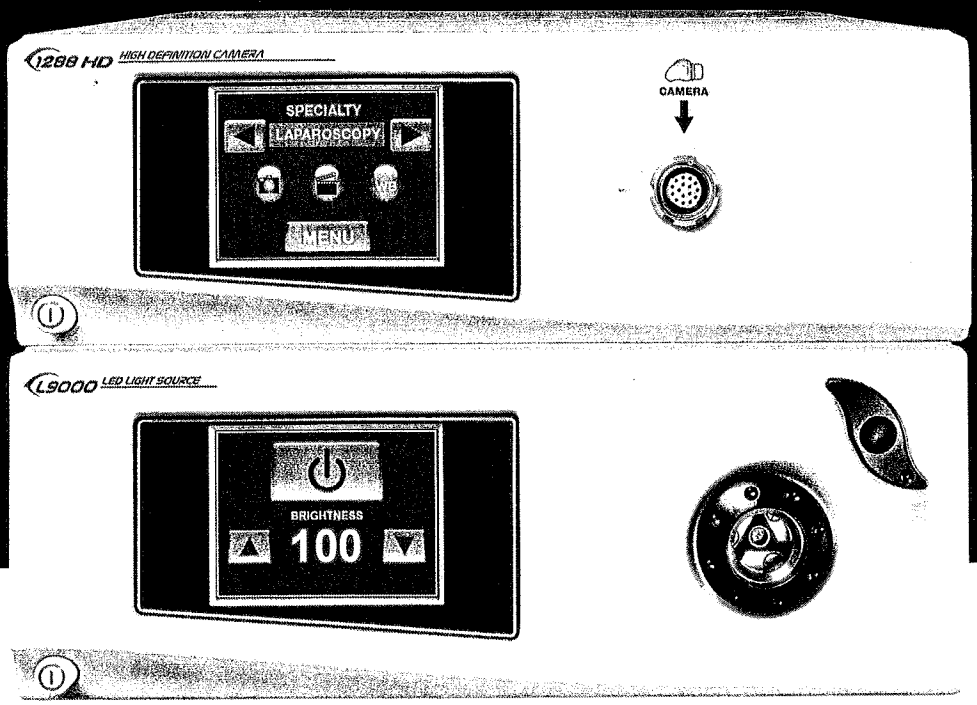
Challenging cases will include: mesh/sling complications, sexual dysfunction, difficult prolapse, occult urinary incontinence

1700 **Close**

stryker®

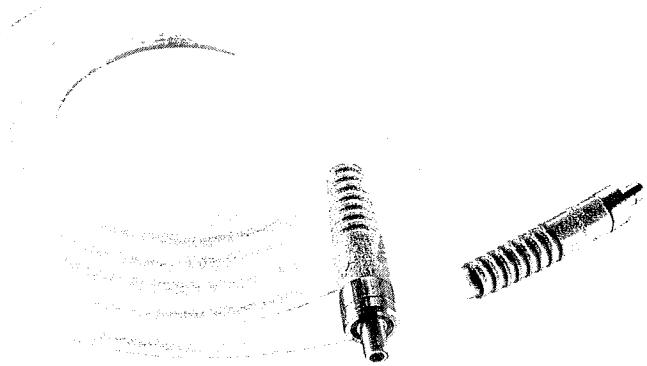
South Pacific

Revolutionary HD Technology



Unparalleled Resolution and Clarity

Light Unlike Ever Before



1288 HD 3 Chip® Camera

- 3rd Generation HD Camera System
- 1920 x 1080p HDTV Resolution
- Fully Programmable Camera Head Buttons with Light Source Control

L9000 LED Light Source

- Cooler Light Emission via LED Light
- Safelight™ Cable Technology puts L9000 on Standby when Scope is Detached
- No Bulbs to Replace, Reduced Lifetime Ownership Cost

AGES PELVIC FLOOR SYMPOSIUM & WORKSHOP X
PROGRAM ABSTRACTS – FRIDAY 7 AUGUST

SESSION 1 / 0815-0830

OVERVIEW OF FEMALE URINARY INCONTINENCE

Rosamilia A

Urinary incontinence, the 'complaint of any involuntary loss of urine', is a common and distressing condition known to adversely affect quality of life. While the prevalence of urinary incontinence has been found to vary widely depending on the definition used, the South Australian Omnibus Survey indicated urinary incontinence easily affects more than 25% of the population, a prevalence surpassing other chronic conditions such as diabetes (6.2%), asthma (12.7%), arthritis (21.2%) and osteoporosis (4.8%).

What about the economic costs? The Australian National Women's Health Policy Statement estimated that individuals may pay up to $1200 a year for incontinence pads, and that 25% of nursing time in nursing homes was spent managing incontinence, at an annual cost of $450 million. Other Australian studies reported a median total direct cost (including personal and treatment costs) of $12.89 per week, with the total economic impact of urinary incontinence estimated at AUD710.44 million per annum. As a chronic condition without a glamorous reputation, it comes as no surprise urinary incontinence has a negative impact on working/social life and overall quality of life.

The commonest causes of urinary incontinence in the developed world are urodynamic stress incontinence (USI), detrusor overactivity (DO), mixed incontinence and overflow incontinence. Clinical assessment of urinary incontinence is important in directing appropriate treatment, and often includes urodynamics. The Burch colposuspension and autologous fascial (pubovaginal) slings were the traditional gold standard operations for female stress urinary incontinence, although advances has also seen introduction of minimally invasive synthetic midurethral slings modernizing the treatment of female stress urinary incontinence. Various systematic reviews has confirmed the efficacy of midurethral slings and it has rapidly overtaken colposuspension as the most popular SUI operation in Australia, NHS and most likely globally.

SESSION 1 / 0905-0920

CYSTOSCOPY IS A SIMPLE AND IMPORTANT INVESTIGATION

Dwyer PL

The Royal Australian and New Zealand College of Obstetricians and Gynaecologists have a detailed curriculum of requirements for fellows to achieve by the end of training which includes diagnostic, therapeutic and surgical skills (www.ranzcog.edu.au). In obstetrics 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 gynecology, 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 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.

The introduction of stress incontinence procedures has increased the number of gynecologists again performing cystourethroscopy in their surgical practices. Procedures such as the minimally invasive sling procedures (TVT) and long needle urethral suspension operations (Stamey or Perera) have cystourethroscopy as an integral part of the procedure. Postoperative cystoscopy also is being increasingly used to prevent urinary tract complications and lessen the risk of medicolegal consequences. However, because they have little exposure to cystourethroscopy or lower urinary tract disorders during gynaecological training, this has caused new problems. Gynecologists are frequently faced with cystoscopic findings with which they are unfamiliar. These might be benign conditions such as squamous metaplasia or cystitis cystica, where they have had to call a urologist or unnecessarily refer the patient for a second cystoscopy. More importantly, serious conditions such as

AGES PELVIC FLOOR SYMPOSIUM & WORKSHOP X
PROGRAM ABSTRACTS – FRIDAY 7 AUGUST

malignancy may be misdiagnosed or missed through ignorance or incomplete examination.

Therefore, the art of endoscopy of the lower urinary tract needs to be re-learnt 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. 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.

SESSION 1 / 0920-0940

MIDURETHRAL SLINGS: TVT – SIMPLY THE BEST?

Carey M

Australian gynaecologists Robert Zaccharin and Peter Petros have played important roles in our understanding of the surgical anatomy of female stress incontinence. Zaccharin reported on the midurethral insertion of the pubourethral ligaments and Petros (along with Ulmsten) described a 'midurethral theory' from which the TVT procedure evolved.

Approximately 16% of women suffer from urinary incontinence and this number increases with age such that 1 in 3 women over the age of 65 years have significant urinary incontinence. The adverse effects of urinary incontinence on patients' quality of life have been well documented. Women report feelings of embarrassment and stigmatization, interference with daily activities and psychological distress with urinary incontinence.

Currently, 100,000 operations for stress incontinence are performed is US each year. In Australia, approximately 12,000 operations for stress incontinence are performed annually. Careful patient evaluation by comprehensive clinical and urodynamic assessment is crucial to obtaining an optimal outcome. Once a diagnosis of stress urinary incontinence (SUI) is established further management can be planned. Pelvic floor exercises should be considered before surgery. Coexistent bladder over-activity should be treated conservatively prior to surgery. General measures such as weight reduction programs, treatment of chronic respiratory conditions etc should also be considered.

Stress urinary incontinence (SUI) is the most common diagnosis. Poor urethral support (bladder neck hypermobility) accounts for around 85% of women with SUI. Intrinsic sphincter deficiency (ISD) is present in about 15% of cases of SUI. Since 2000 there has been a major trend towards minimal access surgery for the treatment of SUI and synthetic mid-urethral slings (TVT-Ethicon, IVS-Tyco, SPARC-AMS) have gained wide popularity. In women with SUI and poor bladder neck support and who fail conservative treatment, the TVT has replaced the colposuspension operation as the new 'gold standard' procedure. The TVT procedure has a long-term objective cure rate exceeding 80%.

The TVT procedure has the following advantages over the colposuspension:
- » Simple and minimally invasive
- » Short learning curve: 5-10 cases
- » Standardized techniques
- » Appropriate in many clinical situations (repeat surgery; ISD; used with prolapse surgery; suitable in obese and medically frail patients)
- » RCT: TVT as effective as open colposuspension
- » Long-term mesh erosion is minimal with TVT

Early concerns about potential problems such as mesh erosion and recurrent sepsis have not been realized with the TVT procedure. Mesh erosion with the TVT procedure is rarely reported.

In recent years, a large number of TVT 'me too' procedures (e.g. SPARC, the transobturator tapes and 'mini slings', TVT-secur and Miniarc) have been developed and marketed. All new surgical procedures for SUI require appropriate pre-clinical and clinical studies to assess their safety and effectiveness before being marketed. New operations cannot simply rely on the established data for the TVT procedure.

There is still a role for procedures other than the TVT operation in the management of SUI. Transurethral bulking operations (Macroplastique, Contigen, Durasphere), transobturator tapes, fascial slings and colpopsuspension all still have an important role in the treatment of SUI. The various surgical treatments for SUI should not be viewed as competing procedures. Rather, the array of effective surgical procedures for SUI allows the surgeon to

individualize treatment for each patient in order to obtain an optimal outcome.

Author affiliation:
M Carey; Royal Women's Hospital, Melbourne, Victoria, Australia.

SESSION 1 / 1000-1030

THE EVOLUTION OF FEMALE URINARY INCONTINENCE SURGERY

Karram M

This talk will discuss the evolution and our understanding of operations to correct stress incontinence over the last 100 years. There will be a quick review of the initial colporraphaphy procedures followed by retropubic operations, needle suspension procedures, traditional pubovaginal slings, bulking agents, and then synthetic mid-urethral slings with a final discussion on up and coming procedures such as injections of stem cells.

Author affiliation:
M Karram; Clinical Professor of Ob/Gyn; University of Cincinnati, Ohio, USA.

SESSION 2 / 1115-1135

ROLE OF RECTUS SHEATH SLINGS AND INJECTABLES

Karram M

This discussion will review the current indications for biologic slings and outcomes on these procedures as it compares to synthetic mid-urethral slings. Also this discussion will include an overview of the perceived definitions of intrinsic sphincter deficiency and the scientific basis of this. Finally, injectables or bulking enhancing agents indications and outcomes will be reviewed.

Author affiliation:
M Karram; Clinical Professor of Ob/Gyn; University of Cincinnati, Ohio, USA.

SESSION 2 / 1150-1205

WHEN SIMPLE MEASURES DON'T WORK – BOTULINUM TOXIN AND NEUROMODULATION

Lee J

Antimuscarinics, together with bladder training remained the first line treatment of overactive bladder. However, adherences rates to anticholinergic medications reported in clinical trials are generally much greater than in real practice. Treatment refractory Overactive Bladder Syndrome (OAB), are generally considered when patients have undergone behavioural modifications and bladder (re)training together with at least 2 different anticholinergic medications; ideally evaluation for potential cause of irritative bladder symptoms should also have been performed.

The promise of a minimally invasive technique certainly has the potential to fill the void created by the unmet need for a 'simple' solution in refractory overactive bladder. Neuromodulation, involving use of Botulinum neurotoxin (BoNT) or sacral nerve stimulation represent options along the 'treatment ladder' for overactive bladder syndrome. They represent a less invasive option compared to bladder augmentation, auto augmentation or even urinary diversion, especially in neurogenic detrusor overactivity, often only as a last resort.

Use of Botulinum neurotoxin (BoNT) in lower urinary tract has been increasing over the last 8 – 9 years, since B Schurch's report on its favourable results in neurogenic detrusor overactivity (NDO). Although primarily used within neurogenic bladders, BoNT is adopted with growing enthusiasm in idiopathic detrusor overactivity (IDO).

A meeting of experts in 2008 (European consensus) recommended (grade A) use of BoNT-A for treatment of refractory symptoms of IDO, albeit with caution due to it's risk of urinary retention and uncertainty surrounding duration of efficacy. The consensus committee recommends larger placebo controlled and comparative trials to evaluate efficacy of single & repeated injections, duration of effects, optimal dose, injection technique (depth, location, trigone sparing), time interval for repeated injections together with short and long term safety of BoNT use in LUTs. After all, BoNT is one of the most potent biological toxin, avoiding the emergence of unanticipated safety problems once BoNT is in clinical use is paramount.

Sacral neuromodulation (SNS) (Interstim®, Medtronic) is approved by the FDA for urgency/frequency, urge(ncy) incontinence and idiopathic urinary retention with well over 25,000 having had the procedure since approval. Patients are selected if they responds (>50% improvement) following a peripheral nerve evaluation using

AGES PELVIC FLOOR SYMPOSIUM & WORKSHOP X
PROGRAM ABSTRACTS – FRIDAY 7 AUGUST

monopolar lead. This is largely replaced by a 2 stage technique using tined quadripolar lead under fluoroscopic control, and if successful, implantation of a generator.

SNS is thought to 'reset' somato-visceral interactions within the sacral spinal cord by modulating sensory processing and micturition reflex pathways in the spinal cord. Its favourable effect on idiopathic urinary retention is thought to be due to inhibition of guarding reflexes. Inhibition of afferent interneuronal transmission as well as direct inhibition of bladder preganglionic nerves is the theoretical basis for its impact on detrusor overactivity.

The initial multicentre RCT reported curing urge(ncy) urinary incontinence (UUI) in 47% of refractory patients with benefit in additional 29%. 56% of those with urgency frequency returned to normal voiding (4-7times per day) or were at least 50% improved. The five year data confirmed the initial favourable results with a mean reduction in UUI per day from 9.6 to 3.9, and reduction in frequency from 19.3 to 14.8. Surgical revision rates are reported to be high, although it has been decreasing over time with better technology to avoid lead migration and errant stimulation. The Interstim II generator has more programming options but has a lower battery life at 4-5 years.

References:

Apostolidis A, Dasgupta P, Denys P, et al. Recommendations on the use of botulinum toxin in the treatment of lower urinary tract disorders and pelvic floor dysfunctions: a European consensus report. Eur Urol 2009;55: 100–20.

Schmidt RA, et al. Sacral nerve stimulation for the treatment of refractory urinary urge incontinence. J Urol 1999; 162: 353–357

Oerlemans DJAJ, van Kerrebroeck PEV. Sacral Nerve Stimulation for neuromodulation of the lower urinary tract. Neurourol Urodyn 2008;27:28-33

Author affiliation:

J Lee; Urogynaecology Fellow, Mercy Hospital for Women, Heidelberg, Victoria, Australia.

SESSION 2 / 1205-1220

WHEN MID URETHRAL SLINGS CAUSE VOIDING DYSFUNCTION

Edwards G

Normal voiding is achieved by a voluntary initiated continuous detrusor contraction that leads to complete bladder emptying within a normal time span and in the absence of obstruction. Abnormal voiding symptoms include slow or intermittent stream, hesitancy, straining to void and terminal dribble.

Pre-operative assessment prior to incontinence surgery is important to diagnose any underlying voiding dysfunction and if possible correct this before surgery. Assessment should include clinical examination, bladder diary, mid stream urine, uroflowmetry and subtracted voiding cystometry.

Various studies have looked at factors that allow prediction of early voiding dysfunction following mid urethral slings and other incontinence surgery. A pre-operative maximum flow rate of less than 15 mls per second increases the incidence of voiding dysfunction following surgery in most studies. Other factors with an increased risk but lower positive predictive values include type of anaesthesia, menopausal state, and previous incontinence surgery. The incidence of voiding dysfunction after mid urethral slings is 3-14% which may be due to oedema, haematoma, or kinking or compression of the urethra. Short term management options include observation, loosening the tape, replacing the tape, or dividing the tape. If voiding dysfunction continues long term then a full urodynamic evaluation id indicated to asses post void residual, voiding detrusor pressure and maximum flow rate. If abnormal voiding with elevated residual persists for greater than 4-6 weeks then operative intervention is usually required.

Various techniques of tape division have been described for long term voiding dysfunction- mid-line tape division, midline segmental incision, complete urethrolysis to endopelvic fascia, and division of tape lateral to midline. There is no clear consensus on technique and in most studies greater than 50% remain continent following tape division.

SESSION 2 / 1235-1300

FUNCTIONAL BOWEL AND PELVIC FLOOR DISORDERS IN WOMEN – FOR THE GYNAECOLOGIST

Kamm MA

Functional gut and pelvic floor symptoms and disorders are extremely common in women. They are frequently encountered in obstetric and gynaecological practice and frequently co-exist with urinary disorders and other functional syndromes. Some knowledge of these disorders, in terms of their pathophysiology and effective management options, is essential for the gynaecologist and obstetrician.

Faecal incontinence affects up to 10 percent of adult women. In young women childbirth trauma is common while in middle age and older women degenerative causes appear to be more important. Pharmacological and behavioural treatments are often effective; sphincter bulking procedures have not demonstrated long-term benefit; sphincter surgery is useful for cloacal deformity but is less clearly effective long-term for lesser degrees of sphincter disruption; non-sphincter surgery such as sacral nerve stimulation appears to produce better long-term results.

Constipation which is unresponsive to simple laxative or dietary therapy will often respond to 'biofeedback', that is behavioural treatment, with good relief of associated symptoms of bloating and pain, and the ability to cease laxatives. Surgery is a last resort. Rectocele in middle aged women may be associated with difficult evacuation; however correction of the anatomical abnormality does not always provide symptom relief.

Most common of all are functional symptoms of pain, bloating, and altered bowel frequency and evacuation. Irritable bowel syndrome is often poorly responsive to standard bowel therapies, but therapies proven to be of some value include probiotics and anti-depressant therapy, both of which have been shown to alter gut sensitivity and diminish symptoms.

Psychological factors should be considered in all these patients. Many of these disorders are associated with increased levels of anxiety, depression, somatisation, catastrophisation, and diminished locus of control. Enquiry about life events and psychological factors should form part of the initial assessment, and should be considered as part of multi-disciplinary care.

Author affiliation:
M A Kamm; Professor of Gastroenterology St Vincent's Hospital and University of Melbourne, Melbourne, Australia. Imperial College, London, United Kingdom.

AGES PELVIC FLOOR SYMPOSIUM & WORKSHOP X
PROGRAM ABSTRACTS – SATURDAY 8 AUGUST

SESSION 4 / 0800-0815

OVERVIEW OF PELVIC ORGAN PROLAPSE

Carey M

Each year in the US, approximately 200,000 women undergo surgery for pelvic organ prolapse (POP) and about 30% of procedures are repeat operations. Currently there is no consensus on optimal surgery for POP. Cystocele repair accounts for 17% of cases, rectocele repair 15%, combined cystocele and rectocele repair 56% and vault repair 12%. Hysterectomy is performed during surgery for POP in 62% of cases and laparoscopy is used in only 1.2% of cases. Urologists and Colorectal surgeons will increasingly perform surgery for POP.

Dissatisfaction with traditional colporrhaphy for POP has resulted in increased use of mesh to augment vaginal repair procedures in order to obtain higher success rates. 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. However, the use of mesh during vaginal repair procedures is controversial. Uncontrolled studies have reported significant problems (e.g. dyspareunia and mesh exposure) with the use of mesh during vaginal prolapse surgery. Paradoxically, there is wide acceptance of mesh usage for prolapse with the abdominal sacral colpopexy procedure.

SURGERY FOR POP

Approach

» Vaginal, Abdominal, Laparoscopic, Transperineal/Transanal

Technique

» Colporrhaphy, site-specific defect approach, colpocliesis, 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 POP

» 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)
» Investigations (urodynamics, imaging)
» 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

Author affiliation:
M Carey; Royal Women's Hospital, Melbourne, Victoria, Australia.

SESSION 4 / 0815-0830

ASSESSMENT AND SIMPLIFIED POP-Q

Al-Salihi S

Background: In 1996 the Pelvic Organ Prolapse Quantification system (POP-Q) has gained international recognition as the 'Gold Standard' for classifying pelvic organ prolapse. It was the first and the only system to gain recognition and endorsement of the major scientific societies like the ICS (international continence society) and AUGS (The American Urogynecologic Society [1].

Description: The POP-Q describes the pelvic organ support with reference to 6 fixed anatomical points of the vagina and the cervix in relation to the position of the hymen. Point Aa represents a point on the anterior vaginal wall 3cm above the hymeneal ring. Point Ba is a point represents the most dependent or distal point on the anterior vaginal wall between A and C. C is the point of anterior lip of the cervix or the vaginal cuff if the patient had hysterectomy in the past. Ap is a point on the posterior vaginal wall 3cm above the hymeneal ring. Bp is the most dependent point on the posterior vaginal wall between point A and D or the cuff in patients had hysterectomy in the past. Point D represents the posterior vaginal fornix. This point is omitted in patients had hysterectomy in the past. The other measurements are: GH (Genital Hiatus) that measures the distance between middle of the external urethral meatus to the posterior hymeneal remnant. The PB (Perineal Body) measures the

distance between the posterior Hymeneal remnant to middle of anal opening. The total vaginal length (TVL), measures the total vaginal length between the hymeneal ring to vaginal apex. Points are plotted on a grid. All the points recorded during the examination, with the exception of total vaginal length (TVL) are measured with the patient performing a Valsalva maneuver or a deep cough.

Clinical Application: The POP-Q system has been repeatedly validated in clinical studies and showed both inter and intraexaminar reliability. The patient's position during examination has been validated and shown that the left lateral position is easy to perform, acceptable by patients and quick to complete [3].

Discussion: The so-called 'Gold Standard' classification system has some limitations though. In a review, almost 10 years after it was first adopted as a measuring tool for pelvic organ support, it was revealed that only 40% of members of ICS and AUGS use the system clinically and on daily bases. That was attributed to the fact that, its time consuming, confusing at times and not widely used by colleagues [2]. Over the years, The POP-Q system has failed to differentiate between normal and abnormal pelvic support. Although the system has proven to be a valid measuring tool it failed as a diagnostic one.

Another limitation is, the system's poor description of post surgical state of pelvic support. In doing that, some of the successful repairs deemed failures based on the points of references in the POP-Q examination. Even though those points did not need correction during surgery. In a recent international Urogynecology meeting, a multicentre study in the US, Australia and UK was presented. The study proposed a revision of the 13-year-old system in adopting a new point in mid vaginal wall (Ma and Mp) to supplement the POP-Q system. However a further study is suggested to explore the utility of the new point and its clinical validity [4].

Reference:

1 The standardization of terminology of female pelvic organ prolapse and pelvic floor dysfunction. Am J of Obst & Gyn 175(1), July 1996, p 10-17.
2 Is the POP-Q being used? A survey of members of The ICS and AUGS. Int Urogynecol J (2004) 15: 324-327.
3 Validation of pelvic organ prolapse quantification system in left lateral position. G. Alessandro, Cardozo. Int Urogyn J (2009) 20:979-983.
4 Study Proposal Validating a new Clinically relevant revision of the (POP-Q) system. H. M. ZYCZYNSKI1, D. G. TINCELLO 2, M. P. CAREY 3; poster #438 IUGA,Como Italy June 2009.

Author affiliation:

Salwan Al-Salihi; Senior Fellow at The Urogynecology Dept, the Royal Women's Hospital in Melbourne, Victoria, Australia.

SESSION 4 / 0830-0845

PESSARIES – DO THEY HAVE A PLACE?

Chao F

The use of pessaries in the treatment of pelvic organ prolapse (POP) dates back to as early as the 1550BC and has been documented in the Egyptian papyruses. Ancient pessaries were made out of a variety of materials such as wood, leather, glass, ivory, sea sponges, fabric, cork, wax, whalebone, brass, silver, gold, etc. Hippocrates described using a pomegranate as a pessary.

Throughout the centuries, pessaries have continued to evolve as new materials are discovered and an understanding of the anatomy and cause of POP improved. Today, pessaries are made of materials like silicone, plastic, Lucite and latex. Silicone has the advantage of having a long half-life, being relatively resistant to repeated autoclaving and cleaning, being an inert, hypoallergenic material that does not absorb secretions and odours.

With improvements in surgical techniques, surgical instruments and materials, anaesthetic and antibiotics, the use of pessaries has declined. However, today, they still remain an important and effective alternative to surgery for the treatment of POP and urinary incontinence (UI).

Current indications for vaginal pessaries include non-surgical management of POP and/ or UI, temporary management of POP whilst awaiting surgery, diagnostic tool for occult SI and determining whether an anterior colporrhaphy will improve obstructive urinary symptoms in patients with severe POP, management of patients with a history of cervical incompetence during pregnancy, management of cervical prolapse during pregnancy and management of neonatal POP. Fitting a vaginal pessary is a trial and error process with little guidelines as to how to best choose a pessary. Pessary fitting trials have found that ~71% of all women who attempted fitting will be successful. Risk factors for not being able to retain a pessary include prior POP surgery, prior hysterectomy, concurrent POP and stress urinary incontinence (SUI), short vaginal length (<6cm), wider vaginal introitus, younger age, higher parity and obesity. Interestingly, sexual activity and POP-Q parameters (POP stage/grade, the leading vaginal compartment of the prolapse and genital hiatus) do not affect the ability of a woman to be fitted with a pessary.

Vaginal pessaries are effective in resolving ~80% of POP symptoms, ~50% of associated urinary symptoms, ~40% of associated bowel

AGES PELVIC FLOOR SYMPOSIUM & WORKSHOP X
PROGRAM ABSTRACTS – SATURDAY 8 AUGUST

symptoms and improves sexual frequency and satisfaction. Approximately 60% of all women offered a pessary will continue use of the pessary 6 months after fitting and about 40% after 1-2 years. Risk factors for discontinuation of pessary use include severe posterior vaginal prolapse, development in occult SI, de novo UI and voiding difficulty, and a strong desire for surgery at initial visit.

Only one trial looked at follow-up of patients with pessaries in situ. The study found that reviewing patients every 3-6-monthly appears to be safe. Complications of pessaries are rare in a compliant patient. In summary, vaginal pessaries still remain an effective, safe, cost effective and acceptable treatment choice for POP and UI.

References:

1 Shah SM, Sultan AH, Thakar R. The history and evolution of pessaries for pelvic organ prolapse. Int Urogynaecol J 2006;17:170-175.
2 Cundiff, GW, Amundsen, CL, Bent, AE, et al. The PESSRI study: symptom relief outcomes of a randomized crossover trial of the ring and Gellhorn pessaries. Am J Obstet Gynecol 2007; 196:405.
3 Fernando, RJ, Thakar, R, Sultan, AH, et al. Effect of vaginal pessaries on symptoms associated with pelvic organ prolapse. Obstet Gynecol 2006; 108:93.
4 Clemons, JL, Aguilar, VC, Tillinghast, TA, et al. Risk factors associated with an unsuccessful pessary fitting trial in women with pelvic organ prolapse. Am J Obstet Gynecol 2004; 190:345.
5 Clemons, JL, Aguilar, VC, Sokol, ER, et al. Patient characteristics that are associated with continued pessary use versus surgery after one year. Am J Obstet Gynecol 2004; 191:159.
6 Clemons, JL, Aguilar, VC, Tillinghast, TA, et al. Patient satisfaction and changes in prolapse and urinary symptoms in women who were fitted successfully with a pessary for pelvic organ prolapse. Am J Obstet Gynecol 2004; 190:1025.
7 Maito, JM, Quam, ZA, Craig, E, et al. Predictors of successful pessary fitting and continued use in a nurse-midwifery pessary clinic. J Midwifery Womens Health 2006; 51:78.
8 Wu, V, Farrell, SA, Baskett, TF, Flowerdew, G. A simplified protocol for pessary management. Obstet Gynecol 1997; 90:990.
9 Mutone, MF, Terry, C, Hale, DS, Benson, JT. Factors which influence the short-term success of pessary management of pelvic organ prolapse. Am J Obstet Gynecol2005; 193:89.Maito.
10 K, Pat Fitzgerald, M, Brubaker, L. Sexual activity predicts continued pessary use. Am J Obstet Gynecol 2004; 191:198. Handa, VL, Jones, M. Do pessaries prevent the progression of pelvic organ prolapse?. Int Urogynecol J Pelvic Floor Dysfunct 2002; 13:349.
11 Donnelly, MJ, Powell-Morgan, S, Olsen, AL, Nygaard, IE. Vaginal pessaries for the management of stress and mixed urinary incontinence. Int Urogynecol J Pelvic Floor Dysfunct 2004; 15:302.
12 Hanson, LA, Schulz, JA, Flood, CG, et al. Vaginal pessaries in managing women with pelvic organ prolapse and urinary incontinence: patient characteristics and factors contributing to success. Int Urogynecol J Pelvic Floor Dysfunct 2006; 17:155.
13 Nguyen, JN, Jones, CR. Pessary treatment of pelvic relaxation: factors affecting successful fitting and continued use. J Wound Ostomy Continence Nurs 2005; 32:255.
14 Robert, M, Mainprize, TC. Long-term assessment of the incontinence ring pessary for the treatment of stress incontinence. Int Urogynecol J Pelvic Floor Dysfunct 2002; 13:326.
15 Powers, K, Lazarou, G, Wang, A, et al. Pessary use in advanced pelvic organ prolapse. Int Urogynecol J Pelvic Floor Dysfunct 2006; 17:160.
16 Liang, CC, Chang, YL, Chang, SD, et al. Pessary test to predict postoperative urinary incontinence in women undergoing hysterectomy for prolapse. Obstet Gynecol 2004; 104:795.
17 Lazarou, G, Scotti, RJ, Mikhail, MS, et al. Pessary reduction and postoperative cure of retention in women with anterior vaginal wall prolapse. Int Urogynecol J Pelvic Floor Dysfunct 2004; 15:175.
18 Bergman, A, Koonings, PP, Ballard, CA. Predicting postoperative urinary incontinence development in women undergoing operation for genitourinary prolapse. Am J Obstet Gynecol 1988; 158:1171.
19 Chaikin, DC, Groutz, A, Blaivas, JG. Predicting the need for anti-incontinence surgery in continent women undergoing repair of severe urogenital prolapse. J Urol 2000; 163:531.
20 Hextall, A, Boos, K, Cardozo, L, et al. Videocystourethrography with a ring pessary in situ. A clinically useful preoperative investigation for continent women with urogenital prolapse?. Int Urogynecol J Pelvic Floor Dysfunct 1998; 9:205.
21 Liang, CC, Chang, YL, Chang, SD, et al. Pessary test to predict postoperative urinary incontinence in women undergoing hysterectomy for prolapse. Obstet Gynecol 2004; 104:795.
22 Alnaif B, Drutz HP. Bacterial vaginosis increases in pessary users. Int Urogynecol J Pelvic Floor Dysfunct. 2000;11:219,222. Discussion 222–223.
23 K, Pat Fitzgerald, M, Brubaker, L. Sexual activity predicts continued pessary use. Am J Obstet Gynecol 2004; 191:198.
24 Handa, VL, Jones, M. Do pessaries prevent the progression of pelvic organ prolapse?. Int Urogynecol J Pelvic Floor Dysfunct 2002; 13:349.

Author affiliation:
Dr Fay Chao; Urogynaecology Fellow, Southern Health, Melbourne, Victoria, Australia.

SESSION 4 / 0845-0900

SURGICAL MANAGEMENT OF PELVIC ORGAN PROLAPSE 2009 COCHRANE REVIEW

Maher C, Feiner B

Objective: This meta-analysis of Randomised Controlled Trials seeks to determine the effects of surgery in the management of pelvic organ prolapse and associated bladder, bowel and sexual function and to provide evidence based recommendations. This is a major update of a previous review, summarising the most up to date data in this field.

Methods: Randomised Controlled Trials that evaluated surgical interventions for managing pelvic organ prolapse, and were published or presented between January 2007 and January 2009, were identified from MEDLINE, CINAHL, the Cochrane Central Register of Controlled Trials (CENTRAL) and hand searching of journals and major conference proceedings. Trials were assessed and data extracted independently by two reviewers. Meta-analyses were performed on a variety of objectives and evidence based conclusions were drawn accordingly.

Results: Overall thirty-eight randomised controlled trials totalling 3773 women were identified. Seventeen were new studies (1586 women) and 3 were major updates of prior work (680 women).

Anterior comparent: Nineteen trials assessed various surgical procedures for treating anterior vaginal prolapse, eight of which were new. Six trials compared anterior colporrhaphy to a variety of synthetic mesh repair techniques and were considered similar enough to be combined in a meta-analysis. A significant reduction in objective recurrence rates at the anterior compartment was achieved both by anterior vaginal repair utilising polypropylene mesh overlay (without fixation arms) (RR 2.14 95% CI 1.23 - 3.74) and by transobturator armed polypropylene meshes (RR 3.55 95% CI 2.29 - 5.51) as compared to anterior colporrhaphy. Polypropylene mesh repair was superior to anterior colporrhaphy in reducing the rate of recurrent cystocele when performed with (RR 2.85 95% CI 1.97-4.12) or without (RR 3.7 95% CI 1.45 - 9.25) a preceding anterior colporrhaphy. No significant differences were able to be demonstrated in subjective outcomes, quality of life parameters, de novo dyspareunia and re-operation rates for prolapse or incontinence between anterior colporrhaphy and polypropylene mesh repairs. Blood loss at transoturator mesh procedures was significantly higher than anterior colporrhaphy and mesh erosions were reported in 10.2% (30/293) of women following anterior compartment polypropylene mesh surgeries.

Stress Urinary Incontinence following prolapse surgery: A meta-analysis on the impact of continence procedure at the time of prolapse surgery was performed using data from eight trials. Continence procedures employed included pubourethral ligament plication, needle suspension, colposuspension and suburethral tapes. The addition of a continence procedure at the time of prolapse surgery significantly reduced the overall rate of postoperative stress urinary incontinence (RR 2.26 95% CI 1.57 - 3.26) and de novo stress incontinence (RR 2.01 95% CI 1.46 - 2.78). In women with preoperative occult stress incontinence, the addition of a continence procedure at the time of prolapse surgery significantly reduced the rate of postoperative de novo stress incontinence (RR 3.69 95% CI 1.73 - 7.84). It is estimated that performing a continence procedure at the time of prolapse surgery on all women with occult stress incontinence will prevent 20% of women developing de novo stress incontinence postoperatively.

Apical compartment: Two trials comparing the Sacrospinous Colpopexy and Infracoccygeal Sacropexy were similar enough for meta-analysis. No significant differences were detected in objective recurrences at any of the vaginal compartments following the two procedures: apical (RR 0.31 95% CI 0.03 - 2.91), anterior (RR 1.96 95% CI 0.79 - 4.87) and posterior (RR 1.76 95% CI 0.50 - 6.18) as well as in the rate of adverse events (RR 0.73 95% CI 0.29 - 1.81), length of hospital stay, postoperative stress urinary incontinence, urge incontinence and constipation. However mean operating time was shorter (WMD 7.58 min, 95% CI 4.04 - 11.13) and mean blood loss smaller (WMD 70ml, 95% CI 56.07 to 83.93) with the Infracoccygeal Sacropexy.

Conclusions: The use of synthetic mesh inlays at the time of anterior vaginal repair reduces the risk of recurrent cystocele on examination. This benefit however was not translated to a significant difference in patient determined outcomes or in re-operation rates for prolapse or incontinence. The addition of a continence procedure to prolapse repair operations in women with stress urinary incontinence and occult stress incontinence reduces the incidence of overall postoperative stress urinary incontinence and de novo stress incontinence. Adequately powered randomised controlled clinical trials are urgently needed on a wide variety of topics.

Author affiliation:
C Maher, B Feiner; Brisbane, Queensland, Australia.

AGES PELVIC FLOOR SYMPOSIUM & WORKSHOP X
PROGRAM ABSTRACTS – SATURDAY 8 AUGUST

SESSION 5 / 0900-0915

TRADITIONAL COLPORRAPHY

O'Shea R, Gibberd S

In 1913, Kelly described his technique for the repair of anterior vaginal prolapse. Today his 'plication technique' remains the most popular cystocoele treatment.

Multiple variations have been described, including the original 'plicating technique', 'purse string anterior repair', 'rolling anterior colporrhaphy' and mere 'skin excision and closure'. Success rates of anterior colporrhaphy in cystocoele repair range from 80-100% in retrospective series. More recently Weber et al (2001) and Sand et al (2001) have reported objective success rates of 42% and 57% respectively. However, both series restricted their approach to the anterior compartment. Most prolapse usually involves multiple compartments which may have adversely affected their results.

The future of the 'Traditional Colporrhaphy' is in some doubt. Poor success rates have stimulated the growth of mesh augmentation approaches. However, failures of the traditional procedure can be easily retreated with further surgery, unlike mesh cases.

Author affiliation:
R O'Shea, S Gibberd; Flinders University and Flinders Medical Centre, Adelaide, South Australia, Australia.

SESSION 5 / 0915-0935

INTRAPERITONEAL HIGH UTERUS SACRAL LIGAMENT SUSPENSION

Karram M

This discussion will review the allusion and basis for this procedure for vault prolapse. Numerous video examples will be presented. The data published on this procedure will also be reviewed.

Author affiliation:
M Karram; Clinical Professor of Ob/Gyn; University of Cincinnati, Ohio, USA.

SESSION 5 / 0935-0950

BILATERAL EXTRAPERITONEAL UTEROSACRAL SUSPENSION: A NEW APPROACH TO CORRECT POST-HYSTERECTOMY VAGINAL VAULT PROLAPSE

Dwyer PL

Restoration of apical vaginal support remains a challenging problem for the pelvic reconstructive surgeon. The transvaginal use of the uterosacral-cardinal ligament complex is gaining increasing popularity in the surgical treatment of uterovaginal and post hysterectomy vault prolapse. We describe an extraperitoneal surgical approach using this ligamentous complex to reattach the vaginal apex in women with post hysterectomy vault prolapse and report our surgical experience with this procedure in 123 women over 5 years. The relevant anatomy related to the procedure and risk of ureteric injury with uterosacral suspension is also reviewed. Extraperitoneal vault suspension can be combined with the use of polypropylene mesh if required. The extraperitoneal approach is an alternative procedure in women with vault prolapse with or without concomitant enterocele, or where access to the Pouch of Douglas is difficult particularly after previous pelvic surgery. We believe this procedure to have less risk of ureteral injury than the intraperitoneal approach.

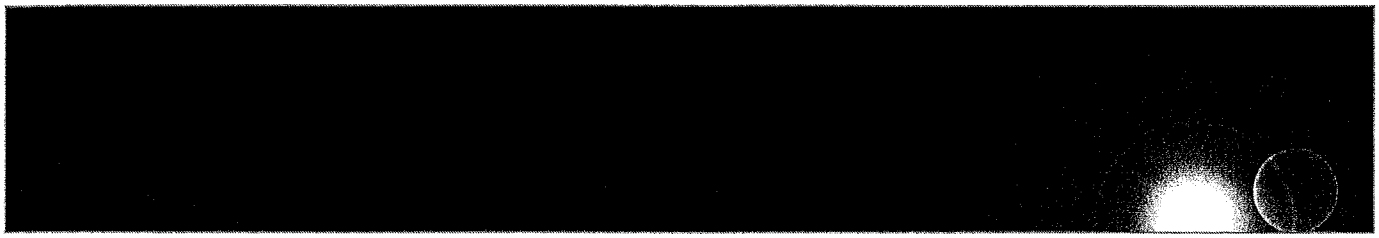
SESSION 5 / 1005-1020

PROLIFT-TECHNIQUES AND PITFALLS

Edwards G

Long term results from traditional repairs have been unsatisfactory and close to 30% of patients who have surgery for pelvic organ prolapse will need a repeat operation for recurrent prolapse. The use of synthetic materials for vaginal wall prolapse does appear to improve surgical outcomes and there are a large variety of absorbable and non absorbable materials with varying techniques described and utilised. Prolift is one of the minimally invasive mesh trocar kits utilised for pelvic organ prolapse and as with all mesh repairs ongoing studies and research are indicated to establish their appropriate place in surgical management.

It is essential to have a clear knowledge of the pelvic floor anatomy before using Prolift. In the anterior compartment the pubocervical



fascia forms the visceral connective tissue hammock upon which the bladder rests and extends from the urethro-vesical junction, laterally to the pelvic sidewalls and posteriorly to the uterosacral ligaments at the level of the ischial spines. The lateral supports are thickened fascial lines (arcus tendinei fascia pelvis)of 7.5-9.5 cms. extending from the pubic arch to the ischial spine.

The arcus tendineus fascia pelvis traverses the obturator foramen and the vessels and nerve of the obturator foramen exit 2.5-3.0 cms. lateral and superior from the inferior pubic ramus. Posteriorly the rectovaginal fascia supports the upper vagina from the apex of the perineal body, laterally along the ilio-coccygeus muscle and posteriorly to the uterosacral ligaments and cul de sac peritoneum and continues to the level of the ischial spines. The Pudendal nerve and vessels lie in Adcock's canal. The posterior Prolift traverses the ischio rectal fossa and is brought out 2 cms. medial to the ischial spine and exits the substance of the mid portion of the sacro spinous ligament.

Bladder and rectal perforation are documented as operative complications in Prolift and other mesh procedures. It would seem appropriate to continue with the mesh placement if there is a bladder perforation provided a satisfactory primary repair is able to be performed. However with a rectal perforation it would be advised to abandon the use of mesh after repairing the perforation.

Mesh erosions are a significant complication (variable rate but overall approx 10%) and often require further surgery to partially or completely remove the mesh. The development of stress urinary incontinence after anterior mesh procedures with Prolift occurs and is not able to be always predicted with pre operative urodynamic evaluation. The development of dyspareunia related to non absorbable mesh is of concern in some studies.

SESSION 5 / 1020-1040

SIMPLE COLPOCLEISIS INDICATIONS AND TECHNIQUES

Karram M

This talk will review the literal procedures including the partial colpocleisis and complete colpectomy and colpocleisis. This numerous video examples will be presented and a discussion on indications, outcomes, and complications will also be presented.

Author affiliation:
M Karram; Clinical Professor of Ob/Gyn; University of Cincinnati, Ohio, USA.

SESSION 6 / 1110-1125

LAPAROSCOPIC SOLUTIONS WHEN 'SIMPLE KIT PROCEDURES' PRODUCE UNINTENDED COMPLICATIONS

Lam A

In the hope of improving surgical outcomes and reducing recurrence rate, synthetic and biological meshes have been introduced into widely clinical practice in recent years, often without the support of level 1 evidence to elucidate its long term safety and efficacy. Despite the early promise, recurrences following mesh repairs still occur. In addition, serious mesh complications such as mesh erosion, infection, dyspareunia and even trauma to bowel, bladder and blood vessels have also been reported.

The actual incidence of mesh-related complications is not known and may often go unreported. Rates of mesh erosion reported range from 1% to 25%, while de novo dyspareunia reported rates range from and 9% to as high as 63%. Sadly, mesh-related complications are not uncommon and can significantly affect patient's quality of life. The management of recurrence and of complications associated with mesh repairs can be challenging. The transvaginal route is the usual chosen approach. In this presentation, several case reports are presented to demonstrate the role of laparoscopic surgery for treatment of recurrence after previous total mesh repairs and for removal of meshes causing dyspareunia or chronic pain after several failed attempts via the vaginal route.The learning point is to that surgeons should have specialised training in each mesh placement technique, be able to counsel patients appropriately, be aware of the various adverse outcomes and be able to deal with them or to seek second opinion or advice should the need arise.

References:

1 Birch C. The use of prosthetics in pelvic reconstructive surgery. Best practice & Research Clinical Obstetrics and Gynaecology. 2005; 19(6):979-991.
2 Chen CG, Ridgeway B, Paraiso MF. Biologic Grafts and Synthetic Meshes in Pelvic Reconstructive Surgery. Clin Obstet Gyne 2001; 50,(2): 383–411.
3 Jelovsek JE, Maher C, Barber MD. Pelvic Organ Prolapse. Lancet 2007; 369: 1027–38.
4 National Institute for Health and Clinical Excellence. Surgical repair of vaginal wall prolapse using mesh. June 2008. http://www.nice.org.uk/guidance/index.jsp?action=download&o=41024\
5 Pelvic organ prolapse. ACOG Practice Bulletin No. 79. American College of Obstetricians and Gynecologists. Obstet Gynecol 2007; 109:461–73.

AGES PELVIC FLOOR SYMPOSIUM & WORKSHOP X
PROGRAM ABSTRACTS – SATURDAY 8 AUGUST

6 FDA Public Health Notification: Serious Complications Associated with Transvaginal Placement of Surgical Mesh in Repair of Pelvic Organ Prolapse and Stress Urinary Incontinence. U.S Food and Drug Administration. 2008. http://www.fda.gov/cdrh/safety/102008-surgicalmesh.html

7 Stepanian AA, Miklos JR, Moore RD, Mattox TF. Risk of mesh extrusion and other mesh-related complications after laparoscopic sacral colpopexy with or without concurrent laparoscopic-assisted vaginal hysterectomy: experience of 402 patients. J Minim Invasive Gynecol. 2008 Mar-Apr;15(2):188-96.

8 Hurtado EA, Bailey HR, Reeves KO. Rectal erosion of synthetic mesh used in posterior colporrhaphy requiring surgical removal. Int Urogynecol J Pelvic Floor Dysfunct. 2007 Dec;18(12):1499-501

9 Govier FE, Kobashi KC, Kozlowski PM, Kuznetsov DD, Begley SJ, McGonigle KF, Muntz HG. High complication rate identified in sacrocolpopexy patients attributed to silicone mesh. Urology. 2005 Jun;65(6):1099-103.

10 South MM, Foster RT, Webster GD, Weidner AC, Amundsen CL. Surgical excision of eroded mesh after prior abdominal sacrocolpopexy. Am J Obstet Gynecol. 2007 Dec;197(6):615.e1-5.

11 Quiroz LH, Gutman RE, Fagan MJ, Cundiff GW. Partial colpocleisis for the treatment of sacrocolpopexy mesh erosions. Int Urogynecol J Pelvic Floor Dysfunct. 2008 Feb;19(2):261-6.

12 Laparoscopic treatment of tension free vaginal tape erosion. Siow A, Morris A, Lam A. Aust N Z J Obstet Gynaecol. 2005 Aug;45(4):333.

13 Laparoscopic removal of mesh used in prolapse floor surgery. Khong Suyen, Lam A. JMIG 2009 (in press).

Author affiliation:
A Lam; Centre for Advanced Reproductive Endosurgery, Sydney, New South Wales, Australia.

SESSION 6 / 1125-1145

ANALYSIS OF THE LEARNING CURVE FOR LAPAROSCOPIC SACROCOLPOPEXY: IDENTIFICATION OF CHALLENGING STEPS

Deprest JP, Claerhout F, Lewi P, Verguts J, De Ridder D

Objective: To assess the learning process of sacrocolpopexy and to identify the most challenging steps of the procedure.

Background: Sacrocolpopexy is the gold standard to correct vaginal vault prolapse. The procedure may be performed abdominally or laparoscopically. Despite the presumed advantage of reduced morbidity of the laparoscopical route, laparoscopic sacrocolpopexy (LSC) is not widely introduced into clinical practice. This may be due to the rarity of the operation and the need for advanced operative skills, such as retroperitoneal dissection and endoscopic suturing. We have earlier shown that LSC is efficacious, as it can yield excellent anatomical and functional results. Given this, there is a need if LSC is also effective, i.e. when being offered in a wider setting and by less experienced operators. However no data exist on the learning process of laparoscopic sacrocolpopexy, so we embarked on an exploratory controlled study that might elucidate the learning process.

Materials and methods: From 2004 to 2006, 60 consecutive patients who were scheduled for LSC were prospectively included in an observational study, documenting the learning process of a fellow in urogynaecology. At the onset of the study this person was familiar with advanced laparoscopic surgery (hysterectomy, endometriosis surgery), but not with LSC. Prior to the study, the fellow primed his suturing skills by 15 hours of practicing endoscopic suturing on an endotrainer. For the purpose of this study the procedure was empirically divided in 5 sequential parts: (1) dissection of the promontory; (2) dissection of the para-sigmoidal and para-rectal gutter and the vaginal vault; (3) fixation of the implant to the vault; (4) fixation of the implant to the promontory; and (5) covering the implant and dissected are with peritoneum. The training process was empirically structured as follows. First the fellow performed step 1 and 2 in its first 30 procedures. In a second step, the fellow performed step 3, 4 and 5 in the next 15 procedures. The remaining part of the operation was done by the tutor. As a lasts step the fellow performed 15 complete procedures. As control data, observations from 30 consecutive LSC entirely done by the tutor were selected. These were cases operated when the fellow was not available.

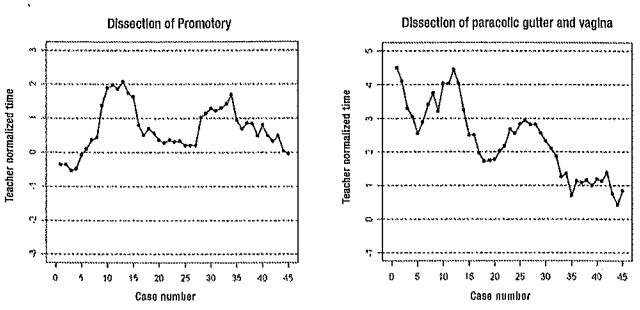
The outcome variables were operation time used for each of the different parts of the operation, operative performance and occurrence of peri-operative complications. Operative performance

was scored by the tutor according to a visual analogue score. Data were analysed by consecutive, chronologic blocks to determine differences in outcome variables and by the moving average method. Successful learning was defined as when the operation time of the fellow fell within 2 standard deviations from that of the tutor.

Results: All procedures were completed laparoscopically. The fellow could accomplish the envisaged part of the operation in all patients, except in one where the fellow requested demand for assistance. There was extensive adhesion formation and the fellow got stuck in the dissection of the rectovaginal septum. There were 3 intra operative complications, one major postoperative complication (spondylodiscitis) and 7 minor postoperative complications. There were no significant differences in complication rates between the fellow and the tutor. The moving average analysis of the operation times of the fellow, normalised to those of the tutor, are displayed in Figure 1. Except for the dissection of the promontory, a learning curve could be determined for all parts. Successful learning was achieved after 31 patients for the dissection of the vault, after 10 patients for suturing the mesh to the vault, and after 7 patients for the peritonealisation part. For fixation of implant to the promontory a decline in operation time could be observed with increasing experience, but duration of dissection was comparable to that of the tutor at baseline.

Conclusion: Given there are no standardized definitions of learning curves neither validated training schemes for advanced laparoscopy, we came up with a pragmatical yet empirically defined training schedule, using the tutor's performance as contemporary controls. Case selection cannot be excluded, but consecutive cases should rule out such an effect. For a fellow experienced in operative laparoscopy, the introduction of LSC is associated with a low conversion rate and few intra-and postoperative complications. It takes considerable time to obtain operation times comparable to someone experienced in LSC. In a teaching setting where the extent of the operation is progressively expanded, so that the trainee is primed with an increasing familiarity with the operation, bottle necks of the operation are dissection of the vault and the suturing of the mesh to the vault.

Author affiliation:
J P Deprest, F Claerhout, P Lewi, J Verguts, D De Ridder; Pelvic Floor Unit, University Hospitals Leuven, Leuven, Belgium



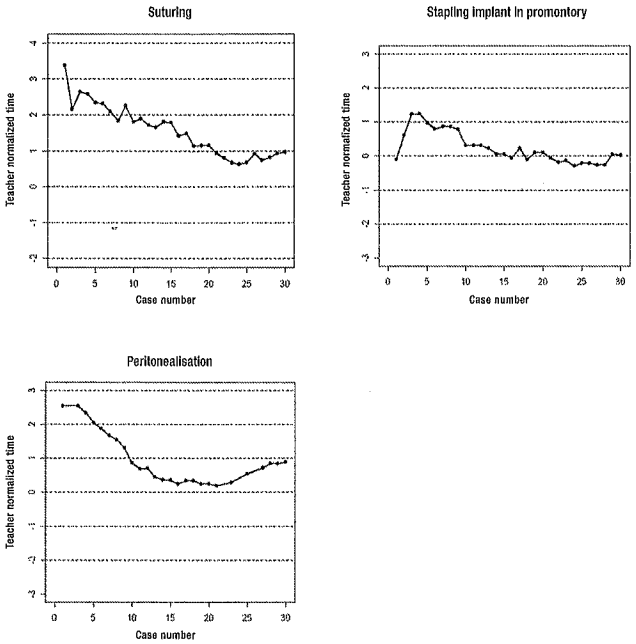


Figure 1

SESSION 6 / 1145-1200

LAPAROSCOPIC SACRAL COLPOPEXY VERSUS TOTAL PROLIFT MESH FOR VAGINAL VAULT PROLAPSE: A RANDOMISED CONTROL TRIAL

Maher C, Feiner B

Objective: To compare Laparoscopic Sacral Colpopexy (LSC) versus Total Vaginal Mesh (TVM) for the management of vaginal vault prolapse

Methods: Women with symptomatic Stage 2 or greater (POP-q) vaginal vault prolapse were eligible for inclusion. Exclusion criteria included those <18 years of age, inability to comprehend questionnaires, failure to give informed consent or able to return for review: vault prolapse < stage 2, unable to undergo general anaesthesia, BMI>35, ≥5 laparotomies, prior sacral colpopexy or TVM or vaginal length less than 6cm. Prior to surgery women were examined (POP-Q), completed validated pelvic floor and quality of life questionnaires (QLD Pelvic Floor Questionnaire[1] QPFQ and Kings college Pelvic Organ Prolapse P-QOL) and underwent urodynamics with and without prolapse reduction. Randomisation was by computer generated list stratified for urodynamic stress incontinence. with

AGES PELVIC FLOOR SYMPOSIUM & WORKSHOP X
PROGRAM ABSTRACTS – SATURDAY 8 AUGUST

allocation concealment. Reviews were conducted by blinded co-authors, at 6 weeks, and the pre-surgical evaluation was repeated at 6 months. Thereafter annual examination and questionnaires were completed with outcomes reported at 2 and 5 years. Given a 76% objective success rate for any prolapse site sacral colpopexy[2] and 92% with Vaginal mesh Prolift[3], the sample size required to detect a 20% difference in success rates with a power of 80% and alpha=0.05 is 74. One hundred women were recruited to allow lost to review of 20%. Written consent and ethics committee approval was obtained.

Results: Table 1 describes patient flow in this study. There were no differences in the two groups regarding age, BMI, parity, menopausal status, number with or number of prior continence or prolapse surgery, educational status or household income. Peri-operative complications in LSC include 1 cystotomy, 1 enterotomy and 1 transfusion: TVM group, 1 transfusion and 1 re-admission infected haematoma. The LSC had a longer operating time, reduced blood loss, inpatient days and quicker return to activities of daily living as compared to TVM (Table 1). At mean 2.0 year reviews the patient satisfaction and objective success rate (POP-q stage 0 &1) at Aa, Ba, Ap, Bp individually and all sites combined was superior following the LSC. There was no difference between the two groups at POP-q site C and TVL was longer in LSC group (Table 2). Pelvic floor dysfunction and quality of life (QPFQ, PQOL) improved significantly in both groups post surgery but no difference was seen between the groups. Post operative SUI was detected in 16% LSC and 33% of the TVM (p=0.08) with similar rates of OAB and voiding dysfunction in both groups. Further surgery in the LSC group (n=4) included trocar hernia, TVT-O, 1 mesh erosion, 1 nephrectomy (non-functioning kidney detected in original surgery) and in the vaginal mesh group (n=13) 5 mesh erosions (3 surgery), 4 mesh excisions for mesh contractions, 3 TVTs, 2 LSC and 1 bowel resection for diverticulitis.

Conclusion: At 2 years the LSC had a higher satisfaction rate and objective success rate than the TVM with a lower blood loss, shorter hospital stay, quicker return to activities of daily living and lower reoperation rate. The LSC took longer to perform and no difference was seen between the groups in QPFD and P-QOL questionnaires. Further evaluation is required.

References:

1 A validated female pelvic floor questionnaire for clinicians and researchers. Neurourol Urodynamic 2004;23;389-9.

2 Abdominal sacral colpopexy or vaginal sacrospinous colpopexy for vaginal vault prolapse. A prospective randomized trials. Am J Obstet Gynecol 2004;190:20-6.

3 Prolift mesh for pelvic organ prolapse surgical treatment using the TVM group technique: A retrospective study of 687 patients. Neururol Urodyn 2005;24:121-2.

This study supported AGES Research grant 2006 & 2007

Author affiliation:
C Maher, B Feiner; Brisbane, Queensland, Australia.

Table 1

Eligible n = 142

12 Excluded, 22 Refused

Randomised n = 108

LSC N=53	TVM N=55
Completed 6 months, n = 53	Completed 6 months, n = 54
Completed 12 months, n = 49	Completed 12 months, n = 48
Completed 30 months, n = 42	Completed 30 months, n = 43
1 unwell, 1 lost to review	1 overseas, 2 lost to review
Analysis n = 53 2 yr mean review	Analysis n = 54 2 yr mean review

Table 2

	LAPAROSCOPIC (N=53)		VAGINAL (N=55)		P VALUE
	Median	Range	Median	Range	
Operating time (mins)	97	[36, 280]	50	[30, 96]	<0.001
Blood loss (ml)	100	[25, 300]	150	[25, 500]	0.004
In patient (days)	2	[2, 6]	3	[2, 6]	0.006
Catheter (days)	1	[1, 42]	2	[1, 21]	0.11
Pain score 1month (0-10)	0	[0, 80]	0	[0, 50]	0.10
Return ADL (days)	21	[7, 50]	21	[5, 63]	<0.001

SESSION 6 / 1200-1215

LAPAROSCOPIC ANTERIOR COMPARTMENT REPAIR. IS THERE A PLACE?

O'Shea R, Seman E, Cook J, Behnia-Willison F, Lam C, Gibberd S

The traditional approach to the anterior vaginal compartment has been via the vagina. Anterior colporrhaphy when subjected to recent strict analysis has been shown to have higher objective failure rates. Paravaginal repair, performed vaginally, has not gained wide acceptance as yet. Hence, in order to improve success rates with the vaginal approach, it has been necessary to augment the repairs with mesh. This has had its own variety of problems including mesh

erosion and dyspareunia. The laparoscopic approach to anterior compartment prolapse commenced in 1990's with Burch Colposuspension. Subsequently paravaginal repair via this route has become feasible.

Advantages of Laparoscopic Paravaginal Repair:

1 Objective success rates of 80% (POPQ)
2 Allows treatment of prolapse in other compartments with easy access to the vault
3 Facilitates treatment of stress incontinence (Burch)

Disadvantages of Laparoscopic Paravaginal Repair:

1 Midline cystocoele subsequently occurs in 20% of cases
2 Repeat surgery for midline cystocoele maybe necessary
3 Technically difficult – Requires advanced laparoscopic surgical skills
4 Gynaecological surgery – deskilling

Laparoscopic anterior compartment repair has a definite place in the management of pelvic organ prolapse. As surgical expertise improves in the future, particularly with robotics, this approach is likely to increase in popularity.

Author affiliation:
R O'Shea, E Seman, J Cook, F Behnia-Willison, C Lam, S Gibberd
Flinders University and Flinders Medical Centre, Adelaide, South Australia, Australia.

SESSION 7 / 1315-1345

THE USE OF MESHES IN PELVIC FLOOR SURGERY

Deprest JP, Ozog Y, Werbrouck E, Mazza E, Klosterhalfen B, Konstantinovic M, De Ridder D

Surgery remains the most important treatment modality for pelvic organ prolapse. Primary repair uses the 'host's' own, native tissue, but 30 % of women ends up with a second intervention within 1.5-12.5 year. In anology with hernia repair, the use of implants has been suggested as a way to reduce the number of recurrences. Implants can be used to augment (reinforce) a native tissue repair, or bluntly to replace a fascial structure. The number of trials properly investigating the added value of implants remained prior to 2006 very limited. For instance polyglactin has been used for primary repair of cystocele (Sand 2001; Weber 2001). Recurrences were higher with standard anterior colporraphy (RR 1.39, 95% CI 1.02 to 1.90). In the Vicryl group there was only one erosion. For posterior repair there were no differences between posterior repair with or without vicryl mesh (RR 1.13, 95% CI 0.40 to 3.19) (Sand 2001). Therefore there were for a long time no solid arguments supporting the standard use of implant, which was in sharp contrast with the change in clinical practice happening (?) spontaneously.

In general surgery, the use of monofilamentary polypropylene to augment hernia repair, can be considered as the gold standard. This practice is currently expanding to the field of POP surgery. This coincides with a few important changes in surgical practice, happening without many surgeons not being aware of this:

1 some use implants systematically rather than in selected patients;
2 the introduction of kits has lead to a number of new, unvalidated procedures which are not comparable to what standard procedures were before;
3 kit-operations typically are no further attempting to identify and/or close the site(s) of the fascial defect, which are at the origin of the prolapse.
4 The host produces a scar tissue, either remodelling or incorporating the implant, that theoretically will serve as a neoligamentous substitute for the failing support system.
5 The new kit procedures conversely usually lead to standardization of the procedure, and often they are minimally invasive.
6 There are a number of specific graft related complications (GRC) that are associated to these new operations. The rate at which these happen, as well as their potential management, are currently the focus of clinical research, but this problem is not solved at present.

It is at this moment very difficult to judge on the effect of all these subtle changes in clinical practice. Apart from these unknown factors, one can indeed hypothesize that the use of non-resorbable material would improve long term results, potentially at the expense of local side effects. Polypropylene is known to cause a strong inflammatory reaction.

Elder products of this type had a high density and/or were relatively stiff, which perhaps is less than ideal in a vaginal environment. In view of the relatively high erosion rates (>10%) attempts were made to adapt surgical technique, select patients better and use lighter and lesser material. At this moment a number of controlled studies have been and are being done, with both anatomical and functional outcome as primary outcome measure. Biological (xenografts) implants were also propagated for this purpose. They are no more than a variation on earlier used autologous or heterologous materials, which never were proven to be very effective in prolapse surgery. Today accellular collagen matrices

AGES PELVIC FLOOR SYMPOSIUM & WORKSHOP X
PROGRAM ABSTRACTS – SATURDAY 8 AUGUST

(ACM) of porcine origin are the most marketed. We conducted a number of experiments demonstrating that this type of implant material provokes a lesser and not pro-inflammatory response. Experimentally non-cross linked products perform less good from a biomechanical viewpoint. Conversely, cross linking does not guarantee product stability as we observed local degradation, and calcification may occur. Overall on tensiometry these products perform as their synthetic counterparts.

Animal experiments do not solve clinical questions, and carefully conducted clinical trials are truly needed (Jia 2008). The use of SIS (non-cross linked) was shown not to improve the long term results of neither anterior (Chaliha 2006) or posterior repair (Paraiso 2006). Meschia (2007) compared the outcome of anterior repair with and without dermal collagen of porcine origin. There were significantly less recurrences when implants were used (RR 2.72, 95% CI 1.20 to 6.14). Our results (Deprest 2009) with sacropexy using ACM show that long term anatomical results are less good with these products, neither did their use prevent GRC to occur. The use of ACM in selected patients, i.e. at increased risk for GRC, yielded even poorer results, again without preventing the occurrence of GRCs.

Therefore it seems that the ideal graft material has not been identified yet. The most explored material today remains Amid type I polypropylene, however this covers a very wide range of products. The focus is now at studying the balance between the amount of material, which is function of the diameter of the filaments used, pore size and an eventual mixture with resorbable filaments that make these products lighter. The rationale is that less foreign material will lead to a more appropriate host response, without compromising physical strength. Further, a more elastic scar should prevent local side effects, such as pain and/or shrinkage. All of this lacks at present a solid scientific basis, and the execution of laboratory research, animal experiments and clinical trial keeps on coinciding in time.

Author affiliation:
J P Deprest[1], Y Ozog[1], E Werbrouck[1], E Mazza[2], B Klosterhalfen[3], M Konstantinovic[1], D De Ridder[1]; 1. Pelvic floor unit, University Hospitals Leuven, Leuven, Belgium. 2. ETH Zurich, Switzerland. 3.Department of Pathology, Duren Hospital, Duren, Germany.

SESSION 7 / 1345-1400

PELVIC IMAGING OF SYNTHETIC AND BIOLOGICAL GRAFTS

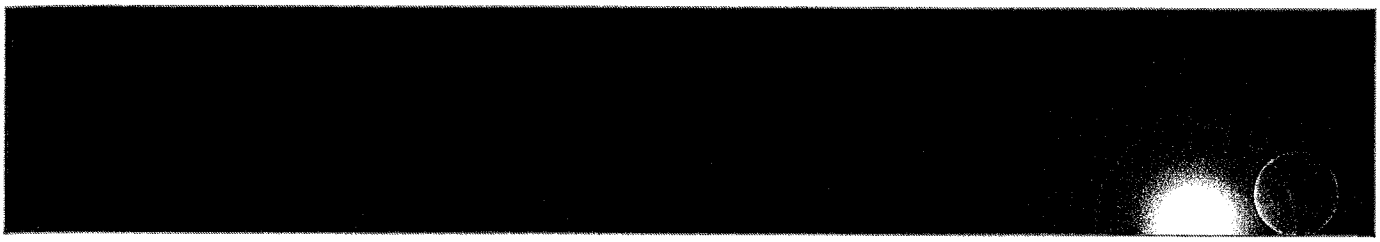
Lim J

With the increasing popularity of mesh and biological grafts in pelvic reconstructive surgery, the need to imaging of these grafts and prostheses once implanted into the patient has never been greater. Synthetic meshes and biological grafts have been used in prolapse surgery in order to obtain more durable support than traditional colporrhaphy. However, mesh has been associated with problems including dyspareunia, mesh exposure, irritative bladder symptoms, rectal pain, and lower bowel dysfunction[1,2]. Currently, the evaluation and management, including further surgery, of these problems has been based largely on clinical assessment. 3D ultrasonography and MRI has the potential to provide important information, in addition to clinical assessment, on outcomes and complications following prolapse surgery with mesh.

The purpose of pelvic imaging following graft or mesh augmented surgery is:
- to evaluate postoperative anatomy
- provide a functional assessment of the support provided by the surgery and prosthesis/graft
- provide an in vivo assessment of the graft/mesh properties and behavior after implantation
- provide an additional tool for assessing mesh related complications
- provide information about the site and the cause of recurrent prolapse
- use as a research tool

- **Clinical indications of pelvic imaging include:**
- chronic pain
- chronic infection
- bladder or bowel dysfunction
- recurrent prolapsed
- pre-operative assessment where mesh or grafts were previously implanted.

3D ULTRASOUND
Advantages:
- Quick & relatively inexpensive
- Provides fine detail assessment of mesh prostheses with great clarity (mesh easily visualized)
- Provides information regarding tissue thickness between mesh and viscera
- Provides accurate anatomical and functional multi-planar



assessment
» Provides detailed in vivo assessment of mesh or graft behavior (eg retraction, degradation)
» Patient can be positioned at 45 degrees
» Direct comparison to POP-Q is possible

Disadvantages:
» Invasive
» Unable to assess prostheses high in the pelvis
» Unable to assess sacral promontory attachment site of sacral colpopexy
» Unable to visualize vault and upper 1.5cm of vagina
» Unable to assess visceral function during defecation and urination

ROLE OF 3D ULTRASOUND:
» Detect and quantify prolapse
» Identify site of recurrent prolapse
» Detect mesh/ graft movement
» Measure tissue thickness between mesh/ graft and viscera
» Measure size of vaginal mesh/ graft
» Identify mesh/ graft properties in vivo associated with mesh/ graft complications such as:
  › graft erosion
  › graft folding
  › graft shrinkage
  › graft degradation
  › graft distance to viscera
  › graft displacement with valsalva

MRI
Advantages:
» Non Invasive
» Visualization of entire mesh prostheses and attachment points after sacral colpopexy.
» Visualization of pelvic soft tissue or viscera
» Functional assessment of bladder & bowel
» Visible synthetic mesh prostheses
» Anatomical & functional assessment of surgery and prostheses during valsalva
» Visible muscles, ligaments, and pelvic viscera.
» Multi-planar assessment

Disadvantages:
» Expensive
» Supine position
» Lack of fine detail of mesh prostheses (mesh not as clearly visualized as 3D US)
» Difficult to assess mesh movement
» Difficult to assess mesh-viscera tissue thicknesses
» Unable to make direct comparison with POP-Q examination

ROLE OF MRI:
» Provide objective measurement of prolapse using fixed bony landmarks
» Provide accurate assessment of site of recurrent prolapse
» Assessment of pelvic pain or chronic infection following LSC
» Provides information about mesh prostheses higher in the pelvis,
» Provides information about surrounding pelvic soft tissue, anatomy, and functional support following surgery with a 'global' perspective.

Conclusion:
There is a definite role for pelvic imaging modalities to aid in the clinical assessment of patients following mesh or graft augmented surgery. 3D ultrasonography appears to be superior to MRI for studying the fine detail of vaginal mesh and mesh relationships to adjacent pelvic viscera or vaginal lumen. However, MRI is more appropriate for studying the 'global' pelvic picture and assessing prostheses higher in the pelvis (eg after sacral colpopexy). The choice of which imaging modality to use should be based upon the clinical indication, the information sought, and the surgery which was performed.

References:
1 Milani R, et al. BJOG. 2005 Jan;112(1):107-11.
2 Lim J, Carey M, et al.
Int Urogynecol J (2007) 18 (Suppl 1):S38-S39.

Author affiliation:
J Lim. Consultant Urogynaecologist, Royal Women's Hospital, Melbourne, Victoria, Australia.

SESSION 7 / 1400-1415

PROSIMA

Carey M

The GYNECARE PROSIMA™ Pelvic Floor Repair System (Ethicon, Somerville, NJ) was developed to surgically treat pelvic organ prolapse. The kit comes with similarly pre-shaped mesh implants, a vaginal support device (VSD), a balloon, an anterior inserter, a posterior inserter and a 60 ml syringe. PROSIMA is a trocar-less surgical system that employs a vaginal approach to prolapse surgery using monofilament polypropylene mesh implants that are held in position for 3 to 4 weeks by a VSD. A balloon is attached to the VSD and is inflated with up to 90ml of air. The balloon is used

AGES PELVIC FLOOR SYMPOSIUM & WORKSHOP X
PROGRAM ABSTRACTS – SATURDAY 8 AUGUST

instead of the traditional vaginal pack and is deflated and removed 24 hours after surgery.

When performing an anterior vaginal repair using PROSIMA the vesicovaginal plane is exposed by dissecting the vaginal epithelium off the underlying pre-vesical tissue. Anterior channels for the mesh implant straps are made on each side by creating a space immediately anterior and superior to the ischial spine and superficial to the parietal fascia of the obturator internus muscle. The anterior mesh implant is introduced into the vesicovaginal plane. The mesh straps are placed into the anterior channels with the aid of the anterior inserter instrument. The vaginal epithelium is closed in two layers. The deeper fibromuscular layer is closed using a continuous non-interlocking stitch. The superficial squamous epithelial layer is closed by a non-interlocking continuous everting mattress stitch. Non-interlocking stitches are used to avoid de-vascularizing the vaginal epithelium along the incision line. The two-layered closure, including the everting mattress stitch, is used to obtain a relatively thick suture line at the site of the vaginal incision. This closure technique is used to reduce mesh exposure.

When performing an posterior vaginal repair using PROSIMA the the rectovaginal plane is exposed by dissecting the vaginal epithelium off the underlying pre-rectal tissue. Posterior channels for the mesh implant straps are created on each side by dissection through the rectal pillars to each ischial spine and sacrospinous ligament. The posterior mesh implant is introduced into the rectcovaginal plane. The mesh straps are placed into the posterior channels with the aid of the posterior inserter instrument so that the mesh implant straps abut the sacrospinous ligaments. The epithelium is closed in the same fashion as the anterior vaginal epithelium. The VSD can be modified into three sizes: large, medium and small. At the completion of surgery an appropriately sized VSD with attached balloon is placed in the vagina and sutured in place to prevent dislodgement. The balloon is inflated with air using the 60 ml syringe. After deflation, the balloon is removed at 24 hours. The VSD is removed 3 to 4 weeks after surgery.

Clinical Study: Women from 11 sites in Europe (5), United States (5) and Australia (1) with symptomatic prolapse (POP-Q Stage II-III) were invited to participate a prospective, single-arm study. Participants completed a medical history, POP-Q exam, QOL and sexual function surveys and a global impression scale (GIS) at baseline, 6 months and 1 year post-operatively. The primary outcome was anatomic success at 1 year. 136 women were included with a mean age of 64.3 years (SD 10.5), BMI 28.4 (5.0). 53.7% were Stage II and 46.3% Stage III. 31 (22.8%) had anterior mesh, 33 (24.3%) posterior and 72 (52.9%) combined repairs. 16.9% had concurrent hysterectomies and 33.1% had mid-urethral slings. At 1 year, 113 women (88.3%), the leading edge of the vaginal wall was at 1cm or more above the hymen. Based on GIS, 73.3% patients reported they were 'much better' and 15.3% 'a little better' at 1 year. All measures of QOL and sexual function improved significantly from baseline (see table). Analysis of safety included 12 additional 'run in' cases (n=148). Cystotomy occurred with dissection in 2 cases; there were no rectal injuries. At baseline, dyspareunia was reported in 13 / 62 (21.0%) sexually active patients; at 1 year, this was reduced to 7.7% (2 persistent, 3 de novo). 3 patients (2.2%) underwent re-intervention for prolapse.

PROSIMA is a novel and innovative approach to prolapse surgery. This vaginal approach uses mesh implants via a trocarless system to improve durability, a VSD to support the positioning of the mesh and prevent vaginal wall adhesions during healing, and a balloon that replaces the traditonal vaginal pack. The two-layered technique used to close the vaginal epithelium is aimed at reducing the risk of mesh expoure along the suture lines.

Author affiliation:
M Carey; Royal Women's Hospital, Melbourne, Victoria, Australia.

SESSION 7 / 1415-1430

PELVIC SURGERY: THE PAST, THE PRESENT, AND THE FUTURE

Karram M

This will be a discussion on our evolution regarding the understanding of a multidisciplinary approach to pelvic floor dysfunction. How we have evaluated and managed these problems in the past, how we are currently evaluating them, and finally some discussion of prediction of the future of this therapeutic area.

Author affiliation:
M Karram; Clinical Professor of Ob/Gyn; University of Cincinnati, Ohio, USA.

AGES PELVIC FLOOR SYMPOSIUM & WORKSHOP X
FREE COMMUNICATIONS I
ABSTRACTS – SATURDAY 8 AUGUST

SESSION 8
FREE COMMUNICATIONS I / 1430-1440

LAPAROSCOPIC REMOVAL OF MESH USED FOR VAGINAL PROLAPSE

Ford R, Khong S-Y, Lam A

In an attempt to improve primary surgical outcomes, synthetic and biological meshes have been introduced to reduce recurrence rate whilst maintaining vaginal capacity and coital function. Despite the lack of level 1 evidence to elucidate its long term safety and efficacy, meshes for pelvic reconstructive surgery are currently being used widely in clinical practice[1]. Serious mesh complications have been reported such as mesh erosion, infection, dyspareunia and even trauma to bowel, bladder and blood vessels[2]. Dealing with these complications can be challenging.

Most mesh complications can probably be managed successfully via the transvaginal route. However, removal of mesh via the transvaginal route may be impossible if surgical access is poor due to extensive vaginal scarring from previous pelvic floor surgeries. In addition, poor visualisation of the operative field, especially when anatomy and surgical planes are distorted, may increase the risks of trauma to blood vessels, nerves, rectum and bladder. When repeated transvaginal attempts prove unsuccessful, an alternative approach either by laparotomy or laparoscopy may be required. The laparoscopic route, with the advantages of improved magnification and pneumoperitoneum, has been successfully used for the removal of tapes used in stress urinary incontinence[3]. This presentation demonstrates the successful laparoscopic removal of mesh after several failed attempts via the vaginal route.

References:

1 Jelovsek JE, Maher C, Barber MD. Pelvic Organ Prolapse. Lancet 2007; 369:1027–38.

2 FDA Public Health Notification: Serious Complications Associated with Transvaginal Placement of Surgical Mesh in Repair of Pelvic Organ Prolapse and Stress Urinary Incontinence. U.S Food and Drug Administration. 2008. http://www.fda.gov/cdrh/safety/102008-surgicalmesh.html

3 Laparoscopic treatment of tension free vaginal tape erosion. Siow A, Morris A, Lam A. Aust N Z J Obstet Gynaecol. 2005 Aug;45(4):333.

Author affiliation:
R Ford, S-Y Khong, A Lam; Centre for Advanced Reproductive Endosurgery, St Leonards Sydney New South Wales Australia.

SESSION 8
FREE COMMUNICATIONS I / 1440-1450

COMPARISON OF OUTCOMES FOLLOWING SURGERY USING THE ANTERIOR-PROLIFT AND PERIGEE SYSTEMS IN WOMEN WITH PELVIC ORGAN PROLAPSE

Feiner B, O'Rourke P, Maher C

Objective: To compare anatomical and functional outcomes, patient satisfaction and complications following pelvic organ prolapse repair using the anterior Prolift™ and Perigee™ mesh kits.

Methods: Women with symptomatic stage 2 (POP-Q) or greater anterior vaginal prolapse who underwent reconstructive surgery using anterior Prolift™ or Perigee™ mesh kits between July 2007 and July 2008 were included and prospectively evaluated. Exclusion criteria were prior mesh implantation and inability to give informed consent. Patients' demographics, medical and obstetric history, previous surgeries, preoperative prolapse quantification and peri-operative data were collected. Postoperative patient evaluation occurred at six weeks and six-monthly thereafter and included pelvic examination performed by a blinded investigator and patient satisfaction on a 1 to 10 Visual Analogue Scale. A validated pelvic floor symptoms and quality of life questionnaire was used postoperatively to compare functional outcome scores of the bladder, bowel and sexual function domains between the two study arms (lower scores reflect better outcomes). Power calculation was performed prior to recruitment, based on published anatomical success rates of Prolift (91.4%)[1] and Perigee (90.5%)[2]. Assuming equivalence of the two procedures, the required sample size to achieve 80% power was 40 patients in each group. Descriptive statistics was used for demographics and peri-operative data. Continuous variables were compared with the t test and categorical variables with the $_{x}2$ test. Statistical significance was set at $P<0.05$. Primary outcome measure was objective success rate, defined as less than stage 2 prolapse at the anterior vaginal wall and at all comparents. Secondary outcomes included subjective success rate (no or occasional prolapse sensation), patient satisfaction, functional outcomes and complication rates. Since this study met the criteria of a clinical audit, it was exempted from a full committee review by the Human Research Ethics Committee. All participants however received written information about the study and gave oral consent upon enrolment.

Results: One hundred and forty seven consecutive women (Prolift 70; Perigee 77) were operated, of whom 106 (Prolift 52; Perigee 54) agreed to participate. Fifteen patients (Prolift 6; Perigee 9) failed to return after the 6 week check but completed the validated questionnaires. Demographic and clinical data as well as number of concomitant procedures performed and peri-operative parameters did not differ significantly between the two treatment groups. At 12 months median follow-up (range 5-23) objective success rates for Prolift and Perigee at the anterior vaginal wall were 89% (41/46) and 80% (36/45) p=0.23 and at all compartments 78% (36/46) and 76% (34/45) respectively p=0.76. Subjective success rates were 94% (49/52) for Prolift and 96% (52/54) for Perigee p=0.62 and mean±SD patient satisfaction was 8.2±2.0 and 8.2±1.8 respectively p=0.91. No significant differences were found in functional outcome scores or in the rate of complications or re-operations.

Conclusion: The anterior Prolift™ and the Perigee™ systems achieve equivalent objective and subjective outcomes at 12 months. Further evaluation of these procedures at longer follow-up durations is required.

References:

1 Dedet B, Rubod C, Boukerrou M, Debodinance P, Cosson M. Transvaginal repair of genital prolapse by the Prolift technique: outcome one year after surgery. Int urogynecol j pelvic floor dysfunct. 2008;19(Suppl 1):S97-8.

2 Moore R, Beyer R, Jacoby K, Freedman S, McCammon K, Gambla M. Multi-center trial evaluating the 6 and 12 mo efficacy and safety of the Perigee System with IntePro. Int urogynecol j pelvic floor dysfunct. 2008;19(Suppl 1):S86-7.

Author affiliation:
B Feiner [1], P O'Rourke [2], C Maher [1]; 1. RBWH, Mater & Wesley Urogynaecology Brisbane Queensland Australia. 2. Queensland Institute of Medical Research (QIMR), Brisbane, Queensland, Australia.

SESSION 8
FREE COMMUNICATIONS I / 1450-1500

SURGISIS™ FOR PELVIC FLOOR PROLAPSE REPAIR: OUTCOMES AND COMPLICATIONS IN 54 CASES

Khong S-Y, Lam A, Markey J, Luscombe G

Study objective: To evaluate the safety and efficacy of the Surgisis™ mesh technique.

Design: Prospective observational study.

Setting: A tertiary referral centre.

Patients: 54 women with a (utero)vaginal prolapse POP-Q stage of 2 or more.

Interventions: Surgery performed for significant cystocoele and rectocoele which included transvaginal placement of Surgisis mesh between December 2006 and December 2008. Other types of prolapse surgery via the transvaginal or laparoscopic routes were performed concomitantly to treat co-existing pelvic floor defects and/ or urinary stress incontinence.

Measurements and results: The mean age of the patients was 54 (range 34-83) and 65% (n=35) were post menopausal. Approximately one quarter had recurrent prolapse (24.1%, n = 13). Half the sample had a previous operation (n=27), and of these 63% (n=17) had a previous hysterectomy and 15% (n=4) previous urinary continence surgery.

Forty nine patients presented with a cystocoele (90.7%), 50 patients with recto/enterocoele (92.6%) and 23 with a central defect (vault or uterine prolapse, 42.6%). The preoperative POP-Q was stage 2 for 8 patients (14.8%), stage 3 for 34 patients (63.0%) and stage 4 for 12 patients (22.2%). Five of the patients had an anterior Surgisis™ repair (9.3%), 15 a posterior repair (27.8%) and the remaining 34 had a total repair (63.0%).

There were no intraoperative complications. Immediate post-operative complications included five UTIs (9.3%), two patients with buttock and hip pain after sacrospinous fixation (3.7%) and one with urinary retention who has concomitant laparoscopic coloposuspension(1.9%). There were three patients (5.6%) who experienced early post-operative complications including wound infection, retropubic haematoma and suprapubic catheter leak/retention.

Approximately one third of the sample was followed-up between 6 and 12 months, 17% between 3 and 6 months and 49% for less

AGES PELVIC FLOOR SYMPOSIUM & WORKSHOP X
FREE COMMUNICATIONS I
ABSTRACTS – SATURDAY 8 AUGUST

than three months. During these follow-up periods there was one mesh erosion secondary to concomitant Anterior Prolift (1.9%) and four procedure failures (7.4%). Two patients have underwent further surgery for recurrent (utero)vaginal prolapse.

Conclusions: This study shows that Surgisis™ produces excellent anatomical outcomes with >90% success (defined as less than stage I POP-Q) during the first year.

Author affiliation:
S-Y Khong, A Lam, J Markey, G Luscombe; Centre for Advanced Reproductive Endosurgery, Sydney, New South Wales, Australia.

SESSION 8
FREE COMMUNICATIONS I / 1500-1510

ARE SUTURES REQUIRED IN VAGINAL HYSTERECTOMY? A RANDOMISED CONTROL STUDY

Wang L, Tan J, Chan KW, Fitz-Gerald A, Tsaltas J

Introduction: Today, vaginal hysterectomy is one of the most commonly performed gynaecology operations with a low overall mortality of 1:2500. Although there are certainly different surgical techniques, by the most part, modern vaginal hysterectomy is performed using traditional clamp cut and haemostasis obtained with sutures.

The Harmonic Scalpel is a tool that generates its energy through ultrasound. Operating at temperatures between 50-100°, it can be safely used in close internal spaces. It has minimal lateral thermal spread and transfers no electricity through the patient.Currently, there have been no studies focusing on the use of this equipment in vaginal hysterectomy. Its use and theoretic benefits have therefore never been tested in a randomised control study.

Hypothesis: It is hypthesised that performing vaginal hysterectomies using the Harmonic Scalpel compared to traditional methods will result in a reduction of intra-operative bleeding, reduced operating time, reduced post-operative pain and a shorter stay in hospital.

Aims: The aim of this study is to perform a randomised control study focusing on the use of Harmonic scalpel in vaginal hysterectomy.

Method: The patients undergoing vaginal hysterectomy are randomized to Harmonic Scalpel vs traditional clamp and suture method. The endpoint for the study will be discharge from hospital. Outcomes measured will be duration of surgery, intra-operative blood loss (volume of blood in irrigation sucker at completion of operation), post-operative pain (number of doses of pain relief received, subjective pain scores) and length of stay in hospital.

Results: Preliminary analysis of 27 participants, 14 in traditional arm and 13 in Harmonic arm, both arms are similar in patient characteristics in terms of age, weight and ASA (American Society of Anesthesiologists) scores. The results show a significant reduction in intra-operative blood loss in the Harmonic group (61.92ml vs 123.75ml). Hysterectomy time slightly lower in Harmonic group (30.69 min vs 33.08 min), this is not significant. There is slight lower dose of analgesia required post-operatively (Oxycodone 7.5mg vs 10.56mg). No difference in length of stay between the two groups.

Conclusion: The current use of the Harmonic Scalpel in laparoscopic and open surgeries has prompted the consideration of its use in vaginal surgery. It is a safe instrument to use in a confined space due to its energy generation properties. The reduction in blood loss and post-operative pain suggests that the Harmonic Scalpel to be a feasible and safe alternative method to performing vaginal hysterectomy.

Acknowledgement: Special mention to the AGES Research Fund which has helped to fund this particular project.

Author Affiliation:
L Wang, J Tan, KW Chan, A Fitz-Gerald, J Tsaltas; Monash Endosurgery Unit, Monash Medical Centre, Moorabbin, Victoria, Australia.

SESSION 8
FREE COMMUNICATIONS I / 1510-1520

RISK FACTORS OF TREATMENT FAILURE OF MIDURETHRAL SLING PROCEDURE FOR WOMEN WITH STRESS URINARY INCONTINENCE

Stav K, Dwyer PL, Rosamilia A, Schierlitz L, Lim YN, Chao F, De Souza A, Thomas E, Murray C, Conway C, Lee J

Hypothesis/aims of study: Despite impressive cure rates from midurethral sling (MUS) procedures for treatment of female stress

urinary incontinence (SUI), failure can occur with reoperation rates ranging from 1.2 – 7%. It is unclear whether there are clinical factors that place a patient at higher risk for objective or subjective failure, since most RCTs are not powered for sub group analyses. Nevertheless, it remained a clinical priority to ascertain clinical risk factors that could accurately predict surgical failures. Identification of risk factors could facilitate preoperative counselling and potentially allow modification of surgical approach to optimise patient outcomes.

Study design, materials and methods: 1112 women, of which 874 were retropubic slings, 262 were transobturator, presenting for an midurethral sling (MUS) procedure for their SUI from 1999 – 2007 were recruited. All women underwent a comprehensive clinical and urodynamic assessment together with a final follow up using a structured questionnaire. Subjective cure is defined as having no subsequent SUI surgery or reporting no urinary leakage from cough sneeze or any physical activity, with subjective failure being the opposite. Clinical data, including surgical reports were separated according to (i) subjective cure; (ii) subjective failure. Clinical parameters possibly associated with subjective failure were assessed using multiple logistic regression analysis with stepwise building of an optimal model for predicting subjective failure. Receiver operator curve (ROC) was performed for calculated probabilities from the final model.

Results: The overall subjective cure rate was 84.7% with a mean follow-up of 50±24 months (range 12-114 months). Univariate analysis following comparison of demographics, clinical, surgical and follow-up variables between success and failure groups, identified the following significant risk factors – BMI above 25, diabetes mellitus, previous continence surgery, urodynamic mixed urinary incontinence, transobturator approach, isolated sling procedure (without concomitant prolapse surgery), low MUCP and low VLPP. The logistic regression model revealed 6 significant independent risk factors for MUS failure (Table).

Interpretation of results: Although overall long term cure from MUS is generally high, 6 independent risk factors were identified from multivariate regression that were associated with reported subjective failure, namely BMI > 25, urodynamic mixed incontinence, previous anti incontinence surgery, intrinsic sphincter deficiency, diabetes mellitus and a protective effect from concomitant prolapse surgery.

Concluding message: Midurethal sling procedures are generally effective in women who have SUI. Independent risk factors predictive of subjective failure in the long term are identified. They should facilitate patient counseling and forms the basis of future research, preferably randomized trials, to determine the best interventions for these subgroups.

References:

1 Barber MD, Kleeman S, Karram MM, Paraiso MF, Ellerkmann M, Vasavada S, Walters MD. Risk factors associated with failure 1 year after retropubic or transobturator midurethral slings. Am J Obstet Gynecol. 2008;199:666.e1-7.

2 Latthe PM, Foon R, Toozs-Hobson P. Transobturator and retropubic tape procedures in stress urinary incontinence: a systematic review and meta-analysis of effectiveness and complications. BJOG 2007;114(5):522-531. Erratum in: BJOG 2007;114(10):1311

Author affiliation:

K Stav [1,3], P L Dwyer [1], A Rosamilia [2], L Schierlitz [1], Y N Lim [1], F Chao [2], A De Souza [1], E Thomas [1], C Murray [1], C Conway [1], J Lee [1]; 1. Departments of Urogynaecology, Mercy Hospital for Women, Victoria, Australia. 2. Monash Medical Centre, Melbourne, Victoria, Australia. 3. Department of Urology, Assaf Harofeh Medical Centre, Zeriffin, Israel.

SESSION 8
FREE COMMUNICATIONS I / 1520-1530

REPEAT SYNTHETIC MIDURETHRAL SLING PROCEDURE FOR WOMEN WITH RECURRENT STRESS URINARY INCONTINENCE

Stav K, Dwyer PL, Rosamilia A, Schierlitz L, Lim YN, Chao F, De Souza A, Thomas E, Murray C, Conway C, Lee J

Hypothesis/aims of study: Despite impressive cure rates from midurethral sling (MUS) procedures for treatment of female stress urinary incontinence (SUI), failure can occur with reoperation rates ranging from 1.2 – 7%. There is no current general consensus on the management of recurrent SUI following a failed MUS. There is paucity of data on repeat sling after a failed primary MUS; available studies generally small with a relatively short follow-up. We aim to determine the safety and efficacy of repeat MUS compared to primary MUS procedures.

Study design, materials and methods: The study involved 1112 women presenting for an midurethral sling (MUS) procedure for their SUI, from 1999 – 2007. 874 of these were retropubic slings, 262 were transobturator. All women underwent a comprehensive clinical and urodynamic assessment together with a final follow up using a structured questionnaire. Clinical data from women with primary MUS were compared with those who underwent repeat

AGES PELVIC FLOOR SYMPOSIUM & WORKSHOP X
FREE COMMUNICATIONS I
ABSTRACTS – SATURDAY 8 AUGUST

MUS procedure. Main outcomes were perioperative complications, long term complications and subjective cure, defined as no subsequent SUI surgery, and no reported urinary leakage from cough, sneeze or any physical activity.

Results: 77 patients (7%) had a repeat-MUS (mean age 62±12 years) and 1035 (93%) had primary sling (mean age 60±13 years) with a mean follow-up of 50±24 months (range 12-114 months). The average time between the primary and the repeat-sling was 2.1±0.5 years. The overall subjective cure rate was 85% (primary-sling group 86%, repeat-sling group 62%, $p<0.001$). Patients who had a repeat-sling had significantly more ISD and significantly lower preoperative MUCP (maximal urethral closing pressure) in the preoperative urodynamics compared with women having a primary sling. The incidence of de novo urge urinary incontinence was significantly higher in the repeat group (22% vs. 5%, $p<0.001$). Mean MUCP and VLPP (Valsalva leak point pressure) values were higher in the transobturator group, amongst those who had repeat MUS. More patients were diagnosed as having ISD in the retropubic group, but this did not reach statistical significance. The subjective cure rate was significantly higher in patients who had repeat-retropubic sling (71% vs. 48%, $p=0.04$). More patients with a repeat retropubic sling had de novo urge incontinence but this did not reach statistical significance.

Interpretation of results: Repeat MUS attracts a lower subjective cure rate although it may be due to a higher incidence of ISD. Repeat MUS also comes with a higher incidence of de novo urgency and urgency urinary incontinence. Repeat-retropubic approach has higher success rate than repeat-transobturator approach.

Concluding message: Although an option for SUI failure, repeat MUS has a lower success rate and clinicians should be aware of a risk of higher incidence urinary urgency and urgency urinary incontinence.

References:

1 Barber MD, Kleeman S, Karram MM, Paraiso MF, Ellerkmann M, Vasavada S, Walters MD. Risk factors associated with failure 1 year after retropubic or transobturator midurethral slings. Am J Obstet Gynecol. 2008;199:666.e1-7.

2 Latthe PM, Foon R, Toozs-Hobson P. Transobturator and retropubic tape procedures in stress urinary incontinence: a systematic review and meta-analysis of effectiveness and complications. BJOG 2007;114(5):522-531. Erratum in: BJOG 2007;114(10):1311

Author affiliation:
K Stav [1,3], P L Dwyer [1], A Rosamilia [2], L Schierlitz [1], Y N Lim [1], F Chao [2], A De Souza [1], E Thomas [1], C Murray [1], C Conway [1], J Lee [1]; 1. Departments of Urogynaecology, Mercy Hospital for Women, Victoria, Australia. 2. Monash Medical Centre, Melbourne,Victoria, Australia. 3. Department of Urology, Assaf Harofeh Medical Centre, Zeriffin, Israel.

AGES PELVIC FLOOR SYMPOSIUM & WORKSHOP X
FREE COMMUNICATIONS II
ABSTRACTS

SESSION 8
FREE COMMUNICATIONS II / 1430-1440

RISK FACTORS FOR TROCAR INJURY TO BLADDER DURING A MIDURETHRAL SLING PROCEDURE – CAN WE PREDICT IT?

Stav K, Dwyer PL, Rosamilia A, Schierlitz L, Lim YN, Lee J

Hypothesis/aims of study: Midurethral slings (MUS) are rapidly becoming the reference standard for surgical treatment of female stress urinary incontinence (SUI). A significant modification of the original retropubic approach was described by DeLorme in 2003, as the transobturator approach, avoiding the Cave of Retzius and thereby avoiding potential complications such as bowel perforation, bladder and major vascular injury. Available literature has shown a divergence in reported rates of bladder injuries; up to 24% in retropubic slings and 0% to 3.1% in transobturator approach. Although associated risk factors were described, the precise reason for such variation is unknown. In this study, we aim to determine independent risk factors for bladder perforation during MUS using multiple logistic regression models.

Study design, materials and methods: The study involved 1136 women presenting for an MUS procedure for their SUI, from 1999 – 2007. 874 of these were retropubic slings, 262 were transobturator. All MUS were followed by routine intraoperative cystourethroscopy using 70 degree rigid cystoscope. Each woman underwent a comprehensive clinical and urodynamic assessment. Clinical data, including surgical reports were separated according to absence or presence of bladder perforation. Clinical parameters possibly associated with bladder perforation were assessed using multiple logistic regression analysis with stepwise building of an optimal model for predicting bladder perforation. Receiver operator curve (ROC) was performed for calculated probabilities from the final model.

Results: Bladder perforation was noted in 34 patients (3%); all of them, except one, occurred during a retropubic sling procedure. 32 (94%) of these perforations were associated with an inexperienced surgeon (Fellow, Registrars; <50 slings) [p<0.0001] Urethral injury was detected intraoperatively in 2 women (0.2%), both of which had retropubic slings. Multivariate analysis revealed the presence of rectocele (OR 6.2), performing the procedure under local anesthesia (OR 5.9), BMI <30 (OR 5.9), previous Cesarean section (OR 3.7), and previous colposuspension (OR 3.2) are significant independent risk factors for perforation. The ROC calculated for the above five independent risk factors was 0.85 ±0.06

Interpretation of results: The incidence of bladder perforation in this large retrospective analysis is low at 3%. For the inexperienced surgeon performing a retropubic sling, the presence of rectocele, performing under local anaesthesia, patient with BMI <30, history of previous Caesarean section or Colposuspension are predictive of bladder injury.

Concluding message: Incidence of bladder injury during MUS is low and largely confined to retropubic slings and inexperienced surgeons. Certain clinical factors are identified to be predictive of bladder injuries – which may be useful for trainers.

References:

1. Novara G, Galfano A, Boscolo-Berto R, Secco S, Cavalleri S, Ficarra V, Artibani W. Complication rates of tension-free midurethral slings in the treatment of female stress urinary incontinence: a systematic review and meta-analysis of randomized controlled trials comparing tension-free midurethral tapes to other surgical procedures and different devices. Eur Urol. 2008;53(2): 288-308.
2. Andonian S, Chen T, St-Denis B, Corcos J. Randomized clinical trial comparing suprapubic arch sling (SPARC) and tension-free vaginal tape (TVT): one year results. Eur Urol 2005; 47 (4) :537–541.

Author affiliation:
K Stav [1,3], P L Dwyer [1], A Rosamilia [2], L Schierlitz [1], Y N Lim [1], J Lee [1]; 1. Departments of Urogynaecology, Mercy Hospital for Women, Victoria, Australia. 2. Monash Medical Centre, Melbourne, Victoria, Australia. 3. Department of Urology, Assaf Harofeh Medical Centre (KS), Zeriffin, Israel.

SESSION 8
FREE COMMUNICATIONS II / 1440-1450

MIDURETHRAL SLING PROCEDURES FOR STRESS URINARY INCONTINENCE ARE EFFECTIVE AND SAFE IN WOMEN OVER 80 YEARS

Stav K, Dwyer PL, Rosamilia A, Schierlitz L, Lim YN, Chao F, De Souza A, Thomas E, Murray C, Conway C, Lee J

Hypothesis/aims of study: It is recognized older age is associated with greater risks of post sling surgery complications. Such concerns regarding worse outcomes might have contributed to under treatment of elderly woman, with literature demonstrating under

AGES PELVIC FLOOR SYMPOSIUM & WORKSHOP X
FREE COMMUNICATIONS II
ABSTRACTS

representation of woman over age of 70 in stress urinary incontinence (SUI) surgical trials and elderly woman not receiving SUI surgery as often as younger woman. Divergence in cure rates has also been reported in comparative studies involving elderly woman who underwent TVT for SUI. We aim to evaluate and compare the efficacy and safety of midurethral slings (MUS) amongst elderly patients (>80 years) versus younger female patients.

Study design, materials and methods: The study involved 1112 women presenting for an midurethral sling (MUS) procedure for their SUI, from 1999 – 2007. 874 of these were retropubic slings, 262 were transobturator. All women underwent a comprehensive clinical and urodynamic assessment together with a final follow up using a structured questionnaire. Clinical data from elderly women (age >80 years) were compared with those from younger women. Main outcomes were perioperative morbidity, long term complications and subjective cure, defined as no subsequent SUI surgery or no reported urinary leakage from cough sneeze or any physical activity.

Results: There were 96 (9%) women over age of 80 (mean age 85±3.5 years) and 1016 (91%) younger women (mean age, 58±11 years). Comparison of demographic, surgical and preoperative variables between aged and younger participants is summarized in Table 1. With a mean follow up of 50 ± 24 months (range 12 – 114), the overall subjective cure rates for MUS was 85%, with no statistically significant difference in subjective cure rates (81% elderly vs 85% younger, p=0.32) or bladder perforation rate (3% elderly vs 3% younger, p=0.64) between the elderly or younger patients. There is also no difference in subjective cure rate between the 2 main approaches in the elderly group of patients (retropubic 82% vs transobturator 79.3%, p=0.75)

The hospitalization time was significantly longer in the elderly (1.6±1.7 days vs. 0.7±1.1 days, p<0.001). However, major perioperative complications were uncommon (1%). Of the patients who had an isolated sling procedure, 37% of the elderly and 9% of the young patients failed their 1st trial of void (p<0.001). However, the long-term rate of voiding difficulty was similar between the two groups (elderly 8% vs. young 6%, p=0.21). There is no significance difference in rate of de novo urgency urinary incontinence between both groups.

Interpretation of results: Overall subjective cure rate and bladder perforation rate for elderly women is not statistically different to younger women who underwent MUS. Hospitalization is longer in elderly women and a greater proportion failed their first voiding trials. There is no difference in rate of long term urgency urinary incontinence or voiding difficulty.

Concluding message: Midurethal Sling procedure is effective and safe in elderly women (age >80 years) who have SUI.

References:

1 Anger JT, Litwin MS, Wang Q, et al.
The effect of age on outcomes of sling surgery for urinary incontinence. J Am Geriatr Soc 2007; 55:1927–1931.
2 Gerten KA, Markland AD , Lloyd LK, Richter HE. Prolapse and Incontinence Surgery in Older Women J Urol 2008; 179: 2111-2118

Author affiliation:
K Stav [1,3], P L Dwyer [1], A Rosamilia [2], L Schierlitz [1], Y N Lim [1], F Chao [2], Al De Souza [1], E Thomas [1], C Murray [1], C Conway [1], J Lee [1]; 1. Departments of Urogynaecology, Mercy Hospital for Women, Victoria, Australia. 2. Monash Medical Centre, Melbourne, Victoria, Australia. 3. Department of Urology, Assaf Harofeh Medical Centre, Zeriffin, Israel.

SESSION 8
FREE COMMUNICATIONS II / 1450-1500

VIDEO PRESENTATION OF EXCISION OF A LARGE ENDOMETRIOTIC NODULE

Ahmed K

The procedure involves excision of extensive endometriosis from the pelvis as well as a large urinary bladder nodule. Firstly, the nodule was assessed both laparoscopically and cystoscopically. Ureteric stenting was then performed. After excision of the pelvic endometriosis, the bladder was mobilised from the attachement to the uterus. The nodule was then resected laparoscopically after cystoscopic demarcation by the urologist using monopolar diathermy. The bladder was then sutured laparoscopically in two layers.

Author affiliation:
K Ahmed; Central Gippsland Health Service, Sale, Victoria, Australia.

SESSION 8
FREE COMMUNICATIONS II / 1500-1510

PROSPECTIVE RANDOMISED DOUBLE BLIND STUDY COMPARING TREATMENT WITH BOTULINUM A TOXIN TO PLACEBO FOR REFRACTORY PAINFUL BLADDER SYNDROME/IC

Manning J

Background: From January 2005 to February 2009, 49 female subjects with refractory interstitial cystitis (IC)/painful bladder syndrome were recruited.

Objective: To determine the efficacy of Botulinum A toxin as a treatment for refractory painful bladder syndrome/IC.

Method: Subjects were recruited from 3 centres and randomized to receive under general anaesthetic, a 4 minute hydrodistention procedure and injection of 30mls of saline or, the hydrodistention with 1 ampoule (500 Units) of Botulinum A toxin (Dysport® Brand) diluted in 30 mls of saline. Both were injected through a 30 cm Bard® 23 gauge needle submucosally at approx. 30 sites in 1 ml aliquots, sparing the trigone and avoiding ureters. Pre-operative urodynamic assessment was performed and sometimes a bladder biopsy was taken if not already available. The O'Leary- Sant (OLS) and Urge IIQ questionnaires; maximum and average functional capacity, daytime and night time frequency (from bladder diary) were recorded just prior and at 1 week, 6 weeks, 3 months, 6 months and 12 months post treatment. A free urinary flow rate with post void residual was performed at 1 week post treatment. Subjects with no satisfactory response were permitted access to active treatment if they wished at a minimum 3 months post initial treatment. Questionnaires and diary for all data were analysed using paired sample t tests at baseline, 1 week, 6 weeks and 3 months post treatment. After this time, the offer of activeZtreatment prevented further randomized comparison. Average age was 54 years (20-77).

Results: At time of reporting, the O'leary Sant results were available pre treatment and at 3 months post treatment for 20 of the subjects allocated to Dysport® and 21 controls. There was a significant improvement noted for both groups, p=0.001 (OLS problem index), p=0.003 (OLS symptom index), however, there was no difference between the two groups. For the OLS symptom index, the Dysport® effect was p=0.48. For the OLS problem index, the Dysport® effect was p=0.06 which suggested a trend. However, omitting one patient with an unusually large benefit, made the overall interaction non significant, p=0.12. There was improvement in the urge IIQ for both groups (0.025) this was not due to Dysport ® (p= 0.29).

Diary data indicated significant improvement in both groups for daytime frequency (p=0.002) this was not due to Dysport® use (P=0.25)

Conclusion: Botulnum A toxin does not appear to be an effective treatment for refractory painful bladder syndrome in females

References:

1 Chung Yet al 172;1529-1532, 2004
2 Giannantoni A et al Abstract 404 ICS 2006
3 Radziszewski P et al Abstract 148, ICS 2003

Author affiliation:
J Manning; Newcastle, New South Wales, Australia.

SESSION 8
FREE COMMUNICATIONS II / 1510-1520

LAPAROSCOPIC UTEROSACRAL LIGAMENT SUSPENSION (LUSLS): ITS ROLE IN THE PREVENTION OF POST HYSTERECTOMY VAULT PROLAPSE

Cario G, O' Neill A, Rosen D, Chou D

Vault prolapse following abdominal or vaginal hysterectomy has been estimated to occur in as little as 0.2% of cases and as much as 43% of cases. In fact this data comes from case studies from the 1960s and a review of the literature shows that the true incidence of post-hysterectomy prolapse is unknown. It is postulated that vault prolapse is due to failure to resuspend the pericervical ring to the uterosacral ligaments. Uterosacral ligament suspension (USLS) gained popularity in the later half of the 20th century. In 1957, McCall described passing a suture vaginally from one side of the vaginal cuff and uterosacral ligament through the peritoneum to the other side, effectively closing the cul-de-sac. More recent modifications have allowed a more durable and effective option and have led to the development of laparoscopic USLS. Semen et al reported 100% objective cure rate in 47 patients after 8 months of follow up, while Maher et al reported that 16% of the 43 patients in their study underwent further prolapse surgery after a mean follow up of 12 months.Total laparoscopic hysterectomy (TLH) offers the great advantage over abdominal and vaginal hysterectomy in respect of apical support in that it preserves

AGES PELVIC FLOOR SYMPOSIUM & WORKSHOP X
FREE COMMUNICATIONS II
ABSTRACTS

the pericervical ring which allows it to be easily resuspended to the uterosacral ligaments. At SWEC we have been resuspending the vault prophylactically after TLH for over 10 years.

We present a retrospective cohort study of 102 women who underwent TLH with laparoscopic USLS from January 2004 to June 2005 for indications other than prolapse followed for minimum of 12 months and a maximum of 54 months. All of these patients had a POP Q C point of -1 or above and therefore Stage 0-1 uterine prolapse. A post-hysterectomy vault prolapse was defined as a POP Q C point of 0 or more.

There were 2 patients who required further surgery in this group. One patient had a preop C point of -1 and a post op C point of -7 with a failure at 48 months at Ba and required an anterior prolift procedure. The only failure in this group had a preop C point of -1 and a post op C point of +1 and a Bp of +1 which required a posterior prolift procedure. This is therefore a post TLH with LUSLS vault prolapse rate of 1%. We believe that this low rate is due to the effective apical support offered by a combination of pericervical ring preservation and effective prophylactic uterosacral suspension.

To prove this hypothesis we describe a new multicentre RCT to compare TLH with and without LUSLS conducted by SWEC beginning in 2009.

Author affiliation:
G Cario, A O'Neill, D Rosen, D Chou; Sydney Women's Endosurgery Centre (SWEC), Sydney, Australia.

SESSION 8
FREE COMMUNICATIONS II / 1520-1530

LAPAROSCOPIC HIGH ANTERIOR PARAVAGINAL REPAIR AND BURCH COLPOSUSPENSION: THE SWEC TECHNIQUE

Cario G, Rosen D, Chou D, O'Neill A

Laparoscopic reconstructive surgery requires a thorough knowledge of pelvic floor anatomy and its supportive components prior to embarking on repair of defective anatomy. The development of minimally invasive techniques has helped increase our insight and understanding of the anatomy and pathophysiology of pelvic organ prolapse. Paravaginal repair was demonstrated originally in 1909 as a vaginal procedure, then as an abdominal procedure in 1976. Research with the help of autopsy studies in the early 1900's identified that anterior vaginal prolapse was caused by detachment of the pubocervical fascia laterally from the arcus tendineus fasciae pelvis. The evolution of laparoscopic paravaginal repair has enabled site specific visualisation of these defects, with reported cure rates of 75-84% with a low morbidity risk.

We present a video showing the SWEC high anterior paravaginal technique that we have developed over the last 5 years to simplify the operation and make it faster. We believe that the abbreviated 6 suture approach with double bites high in the lateral fornix, with aggressive mobilization of the bladder medially together with attachment to the fascial white line as close as possible to the ischial spine and the secondary anchor of this 'key suture' to Coopers ligament is a new innovation. This operation usually includes Burch colposuspension which is added as a simple 2 suture suspension to mimic the support offered by a TVT. The traditional laparoscopic paravaginal repair beginning close to the ischial spine can compromise the mobility of the bladder neck which is essential prior to placement of the paraurethral sutures. The SWEC technique we believe makes the operation faster, easier and more effective in controlling central and transverse defects which have been the major problem with the abdominal and laparoscopic approaches. A thorough knowledge of the retropubic anatomy is essential both from the laparoscopic aspect and the vaginal aspect and this will be discussed during the video.

Author affiliation:
G Cario, D Rosen, D Chou, A O'Neill; Sydney Womens Endosurgery Centre (SWEC) Sydney Australia.

AGES PELVIC FLOOR SYMPOSIUM & WORKSHOP X
FREE COMMUNICATIONS III
ABSTRACTS

SESSION 8
FREE COMMUNICATIONS III / 1430-1440

LAPAROSCOPIC UTEROSACRAL LIGAMENT SUSPENSION FOR THE PREVENTION OF UTEROVAGINAL PROLAPSE ASSOCIATED WITH BURCH COLPOSUSPENSION

Cario G, Anderson J, O'Neill A, Rosen D, Chou D

Objectives: To assess the surgical outcomes and postoperative quality of life of concurrent laparoscopic uterosacral ligament suspension (LUSLS) and Laparoscopic Burch Colposuspension (LBC) and evaluate if the addition of LUSLS to LBC could prevent recurrent uterovaginal prolapse.

Background: The incidence of genital prolapse after BC is well documented. Wiskind et al (1992) reported a 26% re-operation rate in 133 patients and Kwon et al (2003) reported 32% stage II posterior prolapse in 60 women who underwent isolated BC. LUSLS was reported by Medina (2006) as an effective option for preventing uterine prolapse in 23 patients who underwent uterine preservation with LUSLS with no genital prolapse at 16 month follow up. Seman et al reported 100% objective cure rate for LUSLS in 47 patients at 8 months follow up and Maher et al reported an 84% success rate at 12 months follow up. At SWEC GC has been performing LUSLS concurrently with all laparoscopic BC for over 10 years and has been using POP Q assessment pre and post op for the last 5 years.

Methods: Retrospective chart review of 70 patients who had LBC with prophylactic LUSLS by a single surgeon. 11 patients (16%) had previously had a hysterectomy. These patients were then subdivided into an anterior group who had only anterior compartment surgery with BC and LUSLS with(16) and without(16) Total Laparoscopic Hysterectomy (TLH) and a posterior group containing patients who had additional posterior compartment surgery with(14) and without(24) TLH. Preoperative and postoperative (6wk,12 month, 24month and 36 month) POP Q evaluations were performed by a single examiner and recorded. Pelvic Floor Distress Inventory-SF20(PFD) was administered postoperatively.

Results: Six patients had subsequent surgery after the LBC and LUSLS which represents a rate of 8.5%. Significant complications occurred in 6 (8.5%) patients with 5 retropubic haematomas and 1 cystotomy associated with TLH. There were 2(2.8%) reoperations in the anterior group; 0 with no TLH, 2 reoperations with TLH (Bp +1 posterior prolift at 27 months, Bp+1 Lap Mesh SCP at 19 months). There were 4 (5.7% reoperations in the posterior group with 2 in the no TLH group(C 0Ba0 at 24months TLH anterior fornix repair and C0 and Ba0 with TLH and anterior fornix repair at 30 months) and 2 in the TLH group (Bp +1, D 0 Mesh SCP at 19months and Ba 0 Anterior Prolift at 12 months. Mean PFDI scores were low at 8.9 in the posterior group and 7.9 in the anterior group. There was no recurrence of stress incontinence in either group.

Conclusion: Prophylactic LUSLS performed with LBC together with site specific repair at the primary surgery offers a very low reoperation rate and good postoperative quality of life. It does not interfere with the proven success rate of LBC and is easy to perform. An RCT would need to be performed to test this hypothesis.

Author affiliation:
G Cario, J Anderson, A O'Neill, D Rosen, D Chou; Sydney Women's Endosurgery Centre (SWEC), Sydney, New South Wales, Australia.

SESSION 8
FREE COMMUNICATIONS III / 1440-1450

TREATMENT OF ANTERIOR COMPARTMENT PROLAPSE BY LAPAROSCOPIC REPAIR

Gibberd S, Seman E, O'Shea R, Behnia-Willison F, Cook J

Introduction: Satisfactory treatment of anterior compartment prolapse remains elusive. Anterior colporrhaphy continues to be the most widely used surgical treatment despite high failure rates of up to 47-79%[1] and subsequent re-operation in up to 29%[2] of women. Lateral wall defects have been described since 1909 and noted in approximately two thirds of cystocoeles. Abdominal paravaginal repair with its improved recurrence rates (3-14%)[3] was introduced in the mid 1970's and then adopted laparoscopically in mid 1990's.

Objective: Since 1999, laparoscopic paravaginal repair with interval central defect repair when required, has been the preferred approach in our department for anterior compartment prolapse. The long term results are evaluated and presented here.

Methods: 404 women with symptomatic anterior vaginal prolapse underwent a laparoscopic paravaginal repair between February 1999 and December 2008. Pre-op and post-op POP-Q assessment was recorded with failure recorded as equal or greater than POP-Q stage 2 or symptomatic as described by the patient. Symptomatic recurrences were treated with either anterior colporrhaphy or site-specific repair, with and without graft overlay. Graft materials have included autologous vaginal skin, Surgisis & polypropylene.

AGES PELVIC FLOOR SYMPOSIUM & WORKSHOP X
FREE COMMUNICATIONS III
ABSTRACTS

Results: Median age of 61 years (31-90), mean weight of 71kg (40-120), median parity 2.75 (0-9) and average hospital stay was 3.9 days. With an average duration of 110 weeks (2.1 years) follow-up, overall success rate in the anterior compartment was 79%. The success rate for women with follow-up of more than 3 years was 63.6% which declined to 55% for those who exceeded 5 years.

43 of the 83 failures proceeded to an anterior colporrhaphy/ site specific or graft repair. This resulted in a 10% re-operation rate and an overall success rate of 88.8% for two-staged procedures. 19 of the 83 failures were asymptomatic giving a subjective success rate of 83% with the initial procedure or 93.6% with combined procedures. This is in keeping with data previously published by ourselves[3].

Conclusions: Laparoscopic paravaginal repair combined with delayed, selective, graft-reinforced anterior colporrhaphy achieves a cure rate of anterior compartment prolapse of 79%[3].

References:

1 Weber, A.M, Walters, M.D., Piedmonte, M.A., Ballard, L.A., Anterior colporrhaphy: A randomized trial of three surgical techniques Am J Obstet Gynecol 2001: 185: 1299-306

2 Seman,E., Cook, J.R., O'Shea, Two Year Experience with Laparoscopic Pelvic Floor Repair, J Am Assoc Gyneco Laparosc 2003: 10: 38-45

3 Behnia-Willison, F., Seman, E.I., Cook, J.R., O'Shea, R.T., Keirse, M. Laparoscopic paravagainl repair of anterior compartment prolapse Journal of Minimally Invasive Gynecology 2007; 14: 475-480

Author affiliation:
S Gibberd, E Seman, R O'Shea, F Behnia-Willison, J Cook; Flinders Medical Centre, Adelaide, South Australia, Australia.

SESSION 8
FREE COMMUNICATIONS III / 1450-1500

DO THE ADVANTAGE SLINGS WORK AS WELL AS THE TENSIONFREE VAGINAL TAPES?

Lim YN, Dwyer P, Muller R, Rosamilia A, Schierlitz L, DeSouza A, Lee J, Thomas E, Murray C, Conway C, Stav K

Introduction: The Boston Scientific Advantage sling is a monofilament polypropylene sling with easy assembly trocars and detanged suburethral mesh (to reduce vaginal wall irritation) based on the concept of TVT. However, there is currently no data on their safety and efficacy. In this study, we compared the results of the new sling to those of the TVT.

Materials & Method: Following ethics approval, we identified 108 cases of Advantage sling surgeries in our institutions between 2006-2007. For comparison purposes, we selected 556 cases of TVT from our database which matched the Advantage group in the parameters of age, BMI, previous incontinence surgery, pre-operative overactive bladder or voiding dysfunction symptoms, pad use, intrinsic sphincter deficiency, and experienced surgeons to minimize potential confounding effects. Demographic data, operative details, pre- & post-operative history, clinical examination and urodynamic study findings were then compared. Patients were also prospectively surveyed with modified standardized & validated questionnaires and examined clinically where possible.

Results: There were no significant differences between the 2 groups with the above-mentioned parameters and variables such as HRT use, sexual activities, vaginal parity, diabetes, previous prolapse surgery, postvoid residual volumes, and bladder capacities.

Median follow up periods were 111 weeks for the Advantage group and 242 weeks for the TVT group ($p<0.001$). Bladder injury rates were 4.6% and 2.9% respectively ($p=0.36$). Subjective stress incontinence cure were 83.3% and 85.3% respectively ($p=0.66$). Incidences of de novo urgency, urge incontinence and voiding difficulties were 22.2% vs 14.7% ($p=0.06$), 9.3% vs 7.4% ($p=0.55$), and 11.1% vs 6.7% ($p=0.11$) respectively. 92.6% of the Advantage group and 93.2% of the TVT group would recommend the surgery to their friends ($p=0.84$). Analyses within the TVT group found that these outcome parameters did not change significantly with the follow up duration.

Conclusion: There were no major differences between the 2 slings apart from a trend towards more de novo urinary urgency and voiding difficulty symptoms with the Advantage group. It may be

possible that due to its different biomechanical properties, the Advantage slings should be left looser.

Author affiliation:
YN Lim *[1], P Dwyer [1], R Muller [2], A Rosamilia *, L Schierlitz, A DeSouza, J Lee, E Thomas, C Murray, C Conway, K Stav [1];
1. Mercy Hospital for Women Heidelberg, Victoria, Australia.
2. James Cook University, Townsville, Queensland, Australia.
* Adhoc consultants for J&J and AMS.

SESSION 8
FREE COMMUNICATIONS III / 1500-1510

VITAMIN B IN CYSTOSCOPY – A PILOT STUDY

Fernando S, Dowling C, Rosamilia A

Introduction: Indigo carmine has been used as a urinary dye in cystoscopy for many years. However, a reduction in manufacture resulted in a shortage of indigo carmine in early 2009. During this time, as an alternative, vitamin B complex was used as a urinary dye to identify ureteric patency at cystoscopy at Southern Health. We propose that Vitamin B can be used as an alternative, by changing the colour of the urine to bright yellow, therefore avoiding the use of indigo carmine in a majority of patients.

Methods: Patients scheduled for cystoscopy or for an operation likely to require a cystoscopy were given 2-3 tablets of vitamin B complex orally 1-4 hours prior to their operation with a sip of water. The time of administration, time of operation and time of cystoscopy were recorded. The time taken for ureteric jets to be visualized was also recorded. The colour of the urine was graded by the operator as being light, medium or bright yellow. Vitamin B was considered successful if the urine colour was rated medium or bright yellow, therefore indicating ureteric patency.

Results: 36 women in total were given vitamin B prior to their cystoscopy. 6 were given 2 tablets and 30 were given 3 tablets. The mean time from dose to cystoscopy was 170 minutes (SD=74). Twenty-two (61.1%) of these cases were rated successful, with a mean time from dose to cystoscopy of 156 minutes (SD=66). A further 4 (11.1%) were considered partially successful (where one ureter could be identified with yellow jets). Nine (25%) were considered unsuccessful with a mean time from dose to cystoscopy of 214 minutes (SD=87). Of the 36 cases, indigo carmine was used only twice where vitamin B was unsuccessful.

Conclusion: The results of this pilot study show that vitamin B has the potential to be used to significantly reduce costs and potential toxicities of indigo carmine by minimizing its use. Vitamin B warrants further investigation and refinement as a urinary dye in cystoscopy and the study is ongoing in our institution.

Author affiliation:
S Fernando, C Dowling, A Rosamilia; Southern Health, Melbourne, Victoria.

SESSION 8
FREE COMMUNICATIONS III / 1510-1520

COMPARISON OF THE SAFETY AND THE CLINICAL EFFICACY OF LAPAROSCOPIC SAROPEXY AND TOTAL PROLIFT IN THE MANAGEMENT OF PELVIC ORGAN PROLAPSE

Choy R, Lam A

Objective: To compare the safety and the clinical efficacy of laparoscopic sacrocolpopexy (LSCP) and total prolift in the management of pelvic organ prolapse.

Methods: Prospective cohort study of patients presented for management of pelvic organ prolapse during the period of 2006 to 2008. Patients were assessed and assigned to either LSCP or total prolift.

Results: In total, there is 89 patients included in the study. All patients were symptomatic for pelvic organ prolapse. In our cohort, 25(28%) of the 89 patients presented with stage 4 prolapse, 52(58%) with stage 3 prolapse and 11 (12%) with stage 2 prolapse according to the pelvic organ prolapse quantification (POP-Q) system. Bladder and bowel emptying difficulty were present in 16.9% and 13.5% of patients respectively. Thirty five patients underwent LSCP and fifty four patients underwent total Prolift. The objective cure rate was defined as ≤ POP-Q stage 1. The demographics of the two groups were similar. The median follow up was 8months with a range of 1-25months. The objective cure rate for LSCP and total prolift using the POP-Q was 94.5% and 88.9% respectively. For the LSCP group, the main site of objective recurrence was anterior wall. There was no apical recurrence and no vaginal mesh erosion occurred in the LSCP group. For total Prolift, the main site of objective recurrence was vault or uterine prolapse with a mesh erosion rate of 18.5%.

AGES PELVIC FLOOR SYMPOSIUM & WORKSHOP X
FREE COMMUNICATIONS III
ABSTRACTS

Conclusions: Both LSCP and total prolift are equally effective for the management of severe pelvic organ prolapse. However, total prolift is associated with more mesh erosion that requires subsequent removal and other morbidities.

Author affiliation:
R Choy, A Lam; Centre for Advanced Reproductive Endosurgery, Sydney, New South Wales, Australia.

SESSION 8
FREE COMMUNICATIONS III / 1520-1530

USE OF SURGISIS MESH IN THE MANAGEMENT OF MESH EROSION INTO THE VAGINA

Khong S-Y, Lam A

Introduction: Mesh in pelvic reconstructive surgery is being used increasingly in clinical practice in an attempt to improve surgical outcomes and reduce prolapse recurrences. Complications such as mesh erosion (1-25%)[1,2] and de novo dyspareunia (9-63%) [3] are not uncommon and can cause significant patient morbidity and negatively impact on coital function. Patients with small mesh erosions can be managed conservatively with antibiotics, topical oestrogen and abstinence from sexual intercourse until the vagina has healed. However, when conservative measures fail or in cases where the vaginal defect is large or involves multiple areas, excision of the mesh and repair of the vaginal defect(s) are typically performed under general anaesthesia. In cases where there is insufficient healthy surrounding epithelium to cover over the vaginal defect(s), our unit has explored the use of Surgisis mesh to cover over these exposed areas.

Method: Case series of nine patients who presented with mesh erosion. Data were collected retrospectively from medical records and operation notes. Postoperatively, clinical assessment included history taking, digital vaginal and Sim's speculum examination.

Results: The mean age of the patients was 56.7 years (range 43 to 63). Six patients were postmenopausal, one was premenopausal while the menopausal status of two patients was unknown as they had previous hysterectomies. Patients had one or a combination of the following procedures: Anterior Prolift (2), Total Prolift (4), anterior repair with polypropylene mesh with laparoscopic mesh sacrocolpopexy (1), transobturator tension free vaginal tape (3) and posterior colporrhaphy with surgisis mesh(2).

The median time at which patients presented with mesh erosion is 2.6 months (range 2 – 28 months) post vaginal prolapse surgery. Six of the nine patients had resumed sexual intercourse when they presented with mesh erosion. Some patients had a combination of presenting symptoms: dyspareunia (3), vaginal discharge (4), vaginal pain or discomfort (6), and pyrexia(1). One patient was asymptomatic. Conservative treatment with topical oestrogen cream was attempted in eight patients. Eight patients had a single defect (7 anterior, 1 posterior) while one had multiple defects in the vagina. The size of erosion ranged from 1 to 4cm in diameter Postoperatively, five patients were cured, three still have evidence of mesh erosion but of a much smaller area, while one patient required further surgery.

Conclusion: Surgisis mesh is a safe and effective product to use in cases where there is inadequate vaginal epithelium to cover over exposed vaginal areas as a result of mesh erosion.

References:

1 National Institute for Health and Clinical Excellence. Surgical repair of vaginal wall prolapse using mesh. June 2008. http://www.nice.org.uk/guidance/index.jsp?action=download&o=41024\
2 Julian TM. The efficacy of Marlex mesh in the repair of severe., recurrent vaginal prolapse of the anterior midvaginal wall. Am J Obstet Gynecol 1996;175:1472-5
3 Defflieux X, de Tayrac R, Huel C, et al. Vaginal mesh erosion after transvaginal repair of cystocoele using Gynemesh or Gynemesh- Soft in 138 women: a comparative study. Int Urogynecol J Pelvic Floor Dysfunct 2007;18:73-9

Author affiliation:
S-Yen Khong, A Lam; Centre for Advanced Reproductive Endosurgery, Sydney, New South Wales, Australia.

Conference information and conditions

DEPOSITS AND FINAL PAYMENTS:
All costs are payable in advance. If, for any reason, your entire payment has not been received by the due date, we reserve the right to treat your booking fee as cancelled and will apply the appropriate cancellation fee.

CANCELLATION POLICY:
Should you or a member of your party be forced to cancel, you should advise the Conference Organisers in writing. Single Meeting Registrations: The cancellation policy for the Conference allows a cancellation fee of AU$250.00 of registration fees for cancellations received up to 8 weeks' prior to the first day of the Meeting, and of 50% of registration fees for cancellations up to 4 weeks' prior to the Meeting. No refund will be made after this time. Multiple meeting registrants: No refunds apply.

Hotels and other suppliers of services, depending on date of cancellation, may also impose cancellation charges. Accommodation payments will be forfeited if the room is not occupied on the requested check-in date. Please note that a claim for reimbursement of cancellation charges may fall within the terms of travel insurance you effect. AGES reserves the right to cancel any workshop or course if there are insufficient registrations.

INSURANCE:
Registration fees do not include insurance of any kind. Insurance is strongly recommended to cover: loss of payments as a result of cancellation of your participation in the Conference, or through cancellation of the Conference itself, loss of airfares for any reason, loss or damage to personal property, additional expenses and repatriation should travel arrangements need to be altered, medical expenses, or any other related losses.

PRICING POLICY:
It is impossible to predict increases to cost elements such as government taxes and other service provider tariffs. In the event of such fluctuations or increases affecting the price of the Conference, we reserve the right to adjust our prices as may be necessary at any time up to and including the first day of the Conference, even though the balance payment may have been made. If we are forced to change your booking or any part of it for any reasons beyond our control, for instance, if an airline changes its schedule – we reserve the right to vary your itinerary and will give you, or cause to be given to you, prompt notice thereof.

COSTS DO NOT INCLUDE:
Insurance, telephone calls, laundry, food and beverage except as itemised in the brochure, and items of a personal nature.

TRAVEL AND ACCOMMODATION:
AGES and Conference Connection are not themselves carriers or hoteliers nor do we own aircraft, hotels, or coaches. The flights, coach journeys, other travel and hotel accommodation herein are provided by reputable carriers and hoteliers on their own conditions. It is important to note, therefore, that all bookings with the Conference Organisers are subject to the terms and conditions and limitations of liability imposed by hoteliers and other service providers whose services we utilise, some of which limit or exclude liability in respect of death, personal injury, delay and loss or damage to baggage.

OUR RESPONSIBILITY:
AGES and Conference Connection cannot accept any liability of whatever nature for the acts, omissions or default, whether negligent or otherwise of those airlines, coach operators, shipping companies, hoteliers, or other persons providing services in connection with the Conference pursuant to a contract between themselves and yourself (which may be evidenced in writing by the issue of a ticket, voucher, coupon or the like) and over whom we have no direct and exclusive control.

AGES and Conference Connection do not accept any liability in contract or in tort (actionable wrong) for any injury, damage, loss, delay, additional expense or inconvenience caused directly or indirectly by force majeure or other events which are beyond our control, or which are not preventable by reasonable diligence on our part including but not limited to war, civil disturbance, fire, floods, unusually severe weather, acts of God, act of Government or any authorities, accidents to or failure of machinery or equipment or industrial action (whether or not involving our employees and even though such action may be settled by acceding to the demands of a labour group). Please note that the Prices quoted are subject to change without notice.

PRIVACY ACT 1988, Corporations Act 2001:
Collection, maintenance and disclosure of certain personal information are governed by legislation included in these Acts. Please note that your details may be disclosed to the parties mentioned in this brochure.