



Volume 81 December 2022

escope

e-Newsletter of the **Australasian Gynaecological
Endoscopy & Surgery Society Limited**

**EDITION
HIGHLIGHTS:**

AGES Annual
Scientific Meeting
2022 Review

Surgical Performance
Article

JMIG Summaries

Avant Article –
Surviving Medicare
scrutiny: top five
tips to ensure
your records
are compliant

Interstitial and
cornual ectopic
pregnancies –
what are the
options?

Medtronic Article –
The first European
gynaecological
procedure with
the new surgical
robot Hugo™ RAS.



**TOGETHER
TOWARDS
TOMORROW**

● President's Letter

Out of the Ashes

Dear AGES Members,

In this President's Letter I have unashamedly grasped with both hands the opportunity to celebrate the rise of AGES from the ashes during 2022, this the third year of the COVID-19 pandemic.

Despite the excellent virtual meeting programs on offer to AGES Members in 2021, it became evident that "Zoom delirium" inexorably kicked in during this, the 2nd year of COVID. The anticipation and vibe that is usually associated with AGES meetings had, to a significant extent, been lost, with AGES Members and AGES Sponsors despairing the loss of face-to-face meetings.

Consequently, after the spike in COVID cases associated with the Delta variant began to wane, the AGES Board and Secretariat made an undertaking to provide face-to-face meetings whenever and wherever possible in 2022. Then, of course, the first Omicron variant surfaced in late 2021... Nevertheless, the AGES Board and Secretariat pushed ahead with the plan to provide face-to-face meetings. Consequently, there were inevitable changes to the AGES meeting schedule in 2022, with the first AGES meeting not scheduled until June as well as a change in order of the meetings which meant that the ASM was scheduled in November, which was understandably a cause of significant frustration and inconvenience for many AGES Members.

Given significant difficulties associated with the planning of these meetings in the first instance, and then rescheduling and re-confirming the meeting faculties (unfortunately many presenters who had confirmed their availability for the original meeting dates were not available after rescheduling), I am very pleased to report that all the AGES meetings went ahead in 2022 with the vast majority of Members attending face-to face.

The Pelvic Floor Symposium (PFS22) "*Inclusion, Healing & Recovery*" kicked off the 2022 AGES meeting schedule, held in Adelaide in June, with a really positive statement from the AGES Membership with a total of 218 delegates, 62 of which attended virtually.

Following on from the success of the PFS22, the AGES Focus Meeting (FM22) "*Integration Through Innovation*", which was held in Queenstown in August, also resonated with the AGES Membership with a total of 172 delegates, with only 23 choosing a post-meeting virtual access option.

Finally, the AGES XXXII Annual Scientific Meeting (ASM22) "*Onwards and Upwards*" was held in November. The ASM22 conference theme was very apt given the current climate, focusing on the determination and resilience of our Society to progress forward despite the complex challenges that befell all of us over the last 3 years by COVID-19. I am pleased to report that our first face-to-face ASM since the ASM20 (nearly 3 years ago) was a resounding success with 452 delegates. The ASM 22 conference dinner was also a sell out with the Membership relishing the opportunity to re-visit old friendships and to make new ones.



● President's Letter cont.

I can't think of a better city than Melbourne to have hosted the ASM22, given the severe impact COVID-19 has had on this proud city. Melbourne has withstood and conquered multiple COVID-19 outbreaks, despite the profound challenges, by harnessing the strength and courage within its community. Similarly, AGES will continue to *move onwards* in the provision of ongoing education to our members on "core" surgical topics of relevance to trainees, generalist consultants, and advanced laparoscopists, alike. As a dynamic society, we *move upwards* as we push past the boundaries with presentations on new developments and advanced surgical themes to equip you with the motivation, tools, and skills for an energised post-pandemic recovery. There are more details on the highlights of this meeting in the [ASM22 report](#) provided by Scientific Co-Chair, Shami Kathurusinghe, later in this edition of eScope.

I am incredibly grateful to the members of the AGES Board for working tirelessly during these very difficult times and continue to provide you with the high-quality programs for our AGES meetings and webinars. In addition, Mary Sparksman and her AGES secretariat team have, as always and despite numerous roadblocks, been able to make these educational events become a reality – thank you all!

A brief change of focus... the biennial AGES Board elections will be taking place in March 2023 – details will be provided by the AGES Secretariat early in the new year. I encourage all AGES Members to consider running for a position on the Board – this is your Society and if you wish to help steer the future direction of AGES your opinion is welcome.

Finally, for those AGES Members who are yet to attend an AGES meeting since "living with COVID" became the new normal, I urge you re-engage with your Society and your colleagues by attending the [AGES XXXIII Annual Scientific Meeting \(ASM23\)](#) "*Evolution not Revolution*" in March in Sydney, if at all possible, for what will be another fantastic educational and social event. I look forward to seeing you there... AGES is open for business!



Stephen Lyons
AGES President

Editorial

Merry Christmas and welcome to the latest edition of eScope. This will be my final edition of eScope as editor.

I have just returned from America having had the privilege of attending the AAGL congress in Denver with Stephen Lyons and Mary Sparksman. This provided me with the opportunity to experience the AAGL meeting in all its glitz and glamour. I attended many sessions, met new friends and saw some wonderful new presenters. This meeting also gave me an opportunity to meet with the AAGL board and network. We look forward to working together to bring you the Focus meeting in Bangkok in July 6-7th. A welcome letter for this meeting is enclosed. It would be wonderful to see you all at the meeting.

So, what's enclosed in this edition? We have the [trainee article provided by Samuel Vo](#). Samuel has written an article on Interstitial pregnancies and their management. I attended a very interesting session at the AAGL on this exact topic. Some wonderful surgeries were highlighted. Samuel reviews the definitions and diagnosis, as well as the management of this entity.

[Avant have submitted an article on Medicare fraud](#). This is quite timely with recent media reports of doctors being chased for incorrect Medicare billing. Our Platinum sponsor have sent in [an article on the European use of their new robot Hugo](#). Some of you may have been lucky enough to meet Hugo in person in Melbourne at the recent ASM.

The Sydney based SWAPS team have again provided the [JMIG article summaries](#).

We have enclosed [some photos from the last ASM along with a report from Dr Shamitha Kathurisinghe](#). This was an incredible meeting and a fantastic opportunity to meet in person and celebrate our wonderful gynaecological society.

So, I bid you all farewell. It has been an extremely busy few months for me with 3 meetings virtually back to back. I will have the immense pleasure of travelling to the UK for Christmas to finally see my family. It's been a long 3 years with the COVID pandemic paying a heavy toll on my father's health. Unfortunately, he now has advanced Parkinson's dementia and this will be a bitter sweet trip for me. None the less I am excited to catch up with all my friends and family back home. I hope you all have a wonderful Christmas break and look forward to seeing many of you soon at the ASM in Sydney.



Rachel Green
eScope Editor &
AGES Vice-President

FOLLOW US



@ages_society

AUSTRALASIAN GYNAECOLOGICAL ENDOSCOPY & SURGERY SOCIETY LIMITED

PRESIDENT

Stephen Lyons

VICE PRESIDENT

Rachel Green

HON. SECRETARY

Bassem Gerges

TREASURER

Michael Wynn-Williams

IMMEDIATE PAST PRESIDENT

Stuart Salfinger

DIRECTORS

Catarina Ang

Fariba Behnia-Willison,

George Condous,

Kirsten Connan,

Helen Green and

Emma Readman

TRAINEE REPRESENTATIVE

Kate Martin

AGES GENERAL MANAGER

Mary Sparksman

AGES CONFERENCE

ORGANISER AND SECRETARIAT

YRD Event Management

PO Box 717, Indooroopilly

QLD 4068 Australia

Ph: +61 7 3368 2422

F: +61 7 3368 2433

secretariat@ages.com.au

DISCLAIMER The opinions expressed are those of the authors and not necessarily those of AGES. Likewise, the publication of advertisements does not constitute endorsement of the products by AGES.



“Onwards and Upwards” AGES Annual Scientific Meeting 2022 Review

Although the Melbourne weather was predictably unpredictable, the 2022 ASM delegates did not deter but instead were active participants of the program. The session halls were consistently filled with enthusiastic delegates who were spoilt for choice with respect to the calibre of both international and local faculty that were invited to present on “core” themes of relevance to trainees, generalist consultants, and advanced laparoscopists alike.

A/Prof Aizura Adlan, Prof Ertan Saridogan and Dr Arnold P. Advincula were amongst the esteemed international faculty. Aizura opened the conference meeting with an energising and inspiring presentation about establishing the Gynaecological Endoscopic Society of Malaysia whilst declaring her passion for her favourite rock and roll band AC/DC!

ASM delegates received updates on exciting research via the Chairman’s choice presentations and digital communications that were on display alongside the technological and product advances on offer from our sponsors. The pre conference workshops were also sold out and provided an excellent opportunity to refresh on important skills.

The live recorded surgery session chaired by Dr Emma Readman and Dr Catarina Ang navigated both technical and non technical pearls in patient care for complex hysterectomy and bag morcellation.

The prestigious Dan O’Conner lecture was given by Prof Caroline De Costa on abortion access and antenatal screening where she so eloquently highlighted Australia’s journey towards securing reproductive rights and the ethical dilemmas that she now foresees from the advancement of antenatal screening and diagnostic testing.

The 2022 ASM concluded with the presidents panel session showcasing a celebrity line up of speakers that have in their respective fields advocated for the community throughout the COVID-19 pandemic. This included AMA president Dr Steve Robson, Kindness Pandemic founder Dr Catherine Barrett, Infectious Disease (ID) specialist A/Prof Sanjaya Senanayake, Federal Member of Parliament/ID specialist Dr Michelle Ananda-Rajah and ID specialist and Journalist Dr Norman Swan.

The aim of this conference was to reunite, reconnect and re-establish the impetus within us to march onwards and upwards and the resounding positive feedback received from our delegates strongly confirms that we have achieved success. We now look forward to the upcoming 2023 ASM in Sydney.

● AGES Annual Scientific Meeting 2022 Review cont.



● AGES Annual Scientific Meeting 2022

Free Communications Awards

AGES Best Free Communication Presentation

HISTOLOGICAL EFFECT OF FRACTIONAL CO₂ LASER IN POSTMENOPAUSAL VAGINAL EPITHELIUM: A DOUBLE-BLIND SHAM-CONTROLLED RANDOMISED TRIAL

Fiona G Li¹, Rebecca Deans¹, Erin Nesbitt-Hawes¹, Catherine Camaris², Jason Abbott¹

¹ School of Women's and Children's Health, UNSW Sydney, Sydney, NSW, Australia.

² Department of Anatomical Pathology, Prince of Wales Hospital, Sydney, NSW, Australia

INTRODUCTION

Postmenopausal vaginal symptoms affect 60% of postmenopausal women, which can be detrimental to quality of life.¹ The vaginal epithelium is often considered as the central issue causing these symptoms and the term 'vaginal atrophy' is used liberally and suggests loss of vaginal structure is a universal event. We have performed a randomised, double-blind, sham-controlled trial that demonstrated no significant difference between laser and sham treatment for vaginal symptom severity, sexual function, quality of life or Vaginal Health Index scores.² The study also offered a unique opportunity to report histological changes of menopausal epithelium before and after laser and sham treatment.³

METHOD

Full-thickness vaginal epithelium was collected on the right vaginal wall before treatment, and on the left vaginal wall 6 months following first treatment. Paired pre- and post-treatment biopsies were assessed by a blinded specialist gynaecological pathologist who categorised samples as 'pre-menopausal' or 'post-menopausal' based on criteria used in standard practice.

RESULTS

49 paired vaginal biopsies were collected. Baseline vaginal histology was classified 'pre-menopausal' in 42% of all participants. There was no significant difference reported in the vaginal histology between laser and sham treatment groups either pre- or post-treatment. There was change in classification from 'post' to 'pre' menopausal histology following treatment in 3/24 (13%) of women in the sham group compared to 2/22 (9%) in the laser group. There was change in classification from 'pre' to 'post' menopausal histology following treatment in 3/24 (13%) of women in the sham group compared to none in the laser group. There was no significant difference in number of years since menopause, participant-reported symptom severity or Vaginal Health Index scores between pre- and post-menopausal histological category. There was no difference in iatrogenic or natural menopause.

CONCLUSION

Many women who are post-menopausal have vaginal epithelium that is histologically classified as 'pre-menopausal' in a blinded setting. There is a treatment effect of fractional CO₂ laser in postmenopausal vaginal epithelium seen pathologically, however this does not lead to regression from 'post-menopausal' to 'pre-menopausal' epithelium for most women. The use of histology is not useful in diagnosis or prognosis of postmenopausal vaginal symptoms and the term 'atrophy' is incorrect and must be abandoned. These findings are not different whether menopause is iatrogenic or natural.

- 1 Mili N, Paschou SA, Armeni A, Georgopoulos N, Goulis DG, Lambrinouadaki I. Genitourinary syndrome of menopause: a systematic review on prevalence and treatment. *Menopause*. 2021;28(6):706-716.
- 2 Li FG, Maheux-Lacroix S, Deans R, et al. Effect of Fractional Carbon Dioxide Laser vs Sham Treatment on Symptom Severity in Women With Postmenopausal Vaginal Symptoms: A Randomized Clinical Trial. *JAMA*. 2021;326(14):1381-1389.
- 3 Li F, Picard-Fortin V, Maheux-Lacroix S, et al. The Efficacy of Vaginal Laser and Other Energy-Based Treatments on Genital Symptoms in Post-Menopausal Women: A Systematic Review and Meta-Analysis. *J. Minim. Invasive Gynecol.* 2020.

● AGES Annual Scientific Meeting 2022

Free Communications Awards cont.

AGES Best Free Communication Presentation

MACH – Methoxyflurane Analgesia for Conscious Hysteroscopy: a double-blind, randomised controlled trial – an interim analysis

Emily Twidale¹, Catherine Streeton², Lyn Hunt³, Narena Dudley¹

¹ Gynaecology, Waikato District Health Board, Hamilton, Waikato, New Zealand. ² Royal Women's Hospital, Parkville, VIC, Australia.

³ Computing and Mathematical Sciences, University of Waikato, Hamilton, Waikato, New Zealand

OBJECTIVE: Measure the effect of inhaled methoxyflurane on pain and distress during outpatient hysteroscopy compared with no routine analgesia.

DESIGN: Double-blind, randomised, placebo-controlled trial

SETTING: Gynaecology clinic of a tertiary university hospital in New Zealand.

POPULATION: 67 patients undergoing outpatient hysteroscopy between 2020 and 2021. The trial aims to recruit 23 further patients in 2022.

METHODS:

Intervention - participants were randomised 1:1 to receive a Pentrox® inhaler which was either empty, or had 3 ml of methoxyflurane within.

Main Outcome Measures - Visual Analogue Scale pain scores were marked between 0-100mm. The primary outcome is a reduction in mean VAS at the time of diagnostic hysteroscopy, after operative hysteroscopy and at 15 minutes post-operation. Secondary outcomes included the following individually and as a composite representing 'procedural distress': pain score >70mm at any time, unsuccessful diagnostic hysteroscopy due to pain, reluctance for repeat outpatient hysteroscopy, answering 'very much' to the comment 'I feel upset', severe side effects or cervical shock; use of supplemental analgesia; and a condensed form of Spielberger's State-Trait Anxiety Inventory (STAI).

RESULTS: 67 patients were recruited and 66 completed the study. 33 patients were randomised to the methoxyflurane group and 33 to the placebo group.

Baseline characteristics including parity, menopausal status, history of chronic pelvic pain or dysmenorrhoea were comparable between groups.

SIGNIFICANT RESULTS:

- » Patients in the methoxyflurane arm had a relative risk of 0.42 for having 'procedural distress' compared to patients in the placebo arm (95% CI 0.19-0.98) This therapeutic effect remained when pain scores were extended to include >60mm.
- » Mean VAS scores immediately after operative hysteroscopy was 17mm lower in the methoxyflurane group compared to placebo at 22mm and 39mm respectively (95% CI -33.33, -0.17, p=0.048).

NON-SIGNIFICANT RESULTS: When studied in isolation, there were no differences between the groups' mean VAS with diagnostic hysteroscopy and 15 minutes post-procedure, anxiety levels (via STAI), dissatisfaction with outpatient hysteroscopy or side effects.

CONCLUSION: Participants using methoxyflurane had lower rates of 'procedural distress' compared with placebo. They also had reduced mean pain scores with operative hysteroscopy. No severe adverse events related to methoxyflurane were noted.

● AGES Annual Scientific Meeting 2022

Free Communications Awards cont.

AGES Best Video Free Communication Presentation

Neuropelveology: Robotic decompression of the sciatic plexus secondary to vascular entrapment

Mikhail Sarofim¹, Jessica Robertson¹, Assem Kalantan¹, Sarah Choi¹, David Rosen¹, Gregory Cario¹, Marc Possover², Danny Chou¹

¹ Sydney Womens Endosurgery Centre, Sydney, New South Wales, Australia. ² Possover International Medical Centre, Zurich, Switzerland

Pelvic pain is a common presentation for gynaecologists and is often straightforward and adequately managed. However, an important condition that is not well documented when discussing pelvic pain is caused by dilated and aberrant branches of the internal iliac vessels. This vascular entrapment causes pressure on the sacral plexus nerves including the sciatic nerve [1]. Patients will present with sciatic back and lower limb neuralgia, and/or refractory urinary/anorectal dysfunction. One does not typically think of laparoscopic/robotic surgery; however, neuropelveology has become a well-established modality in understanding, managing, and treating pelvic pain. Experienced surgical neuropelveology gynaecologists can access and relieve these entrapped nerves abdominally [2].

To guide you through this treacherous anatomical maze we will present a video of a 26-year-old woman who suffered from debilitating right sided lower limb and pelvic-pain, as well as bowel dysfunction. Her symptoms began after the birth of her son three years prior. Her pregnancy was complicated by severe pelvic girdle pain requiring a wheelchair and a subsequent difficult vaginal birth and retained placenta. Post-partum she had severe right sided hip and posterior thigh pain (S1,S2,S3), posterior/lateral calf pain (L4,L5,S1) and heel pain (S1,S2). She also reported buttock and calf tingling. At its worst she was bed-bound, mostly during menstruation/ovulation in her cycle. She mobilised with difficulty with a walking aid and was taking regular opioids. After multiple presentations to orthopaedic surgeons, pain specialists and gynaecologists; and after an abundance of unremarkable ultrasounds, CTs, a colonoscopy and MRIs she was reviewed at our unit and subsequently underwent robotic decompression of her right sacral plexus.

The intra-operative findings were consistent with multiple aberrant vessels compressing the lumbo-sacral trunk, sciatic nerve and pudendal nerve. In this video we will discuss the intra-operative anatomical findings; which will typically not be detectable on imaging. The patient immediately reported her pain had resolved in recovery and was mobilising without aids on day one post-operatively. She is no longer on any opioids for pain relief and is completely pain-free.

This case highlights a less common cause of pelvic pain and the importance of a thorough history including pain location and radiation. Vascular entrapment of the sacral plexus is a condition that should be considered when a patient presents with sciatic/bowel/bladder symptoms without any detectable pathology/precipitating factors. Finally, although this procedure is effective it does require significant experience with laparoscopy/robotic techniques and pelvic nerve anatomy and specialist referral is recommended [3].

- 1 Possover M, Schneider T, Henle KP. Laparoscopic therapy for endometriosis and vascular entrapment of sacral plexus. *Fertil Steril*. 2011 Feb;95(2):756-8. doi: 10.1016/j.fertnstert.2010.08.048. Epub 2010 Sep 25. PMID: 20869701.
- 2 Lemos N, Possover M. Laparoscopic approach to intrapelvic nerve entrapments. *J Hip Preserv Surg*. 2015 Jul;2(2):92-8. doi: 10.1093/jhps/hnv030. Epub 2015 Jun 6. PMID: 27011825; PMCID: PMC4718483.
- 3 Ahmet Kale, Gulfem Basol, Taner Usta, Isa Cam, Vascular Entrapment of Both the Sciatic and Pudendal Nerves Causing Persistent Sciatica and Pudendal Neuralgia, *Journal of Minimally Invasive Gynecology*, Volume 26, Issue 2, 2019, Pages 360-361



● AGES Annual Scientific Meeting 2022

Free Communications Awards cont.

AGES Best Digital Communication Presentation

Davinci Robotic Port Sites – New Configurations For Cosmesis

Jessica A Robertson¹, Mikhail Sarofim¹, Assem Kalantan¹, Sarah Choi¹, David Rosen¹, Gregory Cario¹, Danny Chou¹

¹ Sydney Women's Endosurgery Centre, Kogarah, NSW

BACKGROUND

The Davinci Xi Guide recommends placing ports laterally across the abdomen at the level of the umbilicus, 10-20 cm away from the target anatomy. Each port is spaced 6-10cm apart. (1) The cosmetic outcome of this port configuration is a deterrent for the use of the Davinci robot in women having surgery for benign conditions. A study of patient preferences for benign gynaecological surgical incisions ranked robotic port site scars to be the least favourable incision sites. (2) The superior ergonomics, and benefits of robotic fully wristed instruments have caused surgeons to trial new port configurations. (3) This study aims to assess whether placing robotic ports more distal on the abdomen, or reducing the overall number of ports required impacts surgical satisfaction with target pathology access or patient safety.

METHODS

A prospective review of twenty robotic cases for benign gynaecological conditions using alternative ports was performed between February and August 2022. The specific location of each port, clashing of robotic arms, complications and surgeon and surgical assistant satisfaction with target pathology access were reported as primary outcomes.

RESULTS

Patients had robotic surgery for total laparoscopic hysterectomy (14 cases), excision of endometriosis (5 cases) or bilateral salpingo-oophorectomy (1 case). 7 cases used 4 ports, with the removal of either the assistant port (5 cases) or robotic arm 2 (2 cases). Median robotic arm 1 port placement was 3 cm from the anterior superior iliac spine (ASIS) (Range 2-7cm). Arm 2 was the camera port at the umbilicus for 18 cases. Arm 3 was placed 2cm above the pubic bone and a median distance of 8 cm (Range 5-12cm) medial to the right ASIS in eighteen cases and at the umbilicus in 2 cases. The median distance of arm 4 from the right ASIS was 3 cm (Range 2-6cm). A suprapubic assistant port was placed in the midline for 1 case, however due to restrictions in lateral access, assistant suprapubic ports were then placed 3 cm left of the midline. Clashing between robotic arms occurred in 3 cases. There were no complications in all included cases. The median surgeon satisfaction score was 9 out of ten (Range 7-10). The median assistant satisfaction score was 8 out of ten (Range 5-10).

CONCLUSION

Robotic port sites can be modified for benign gynaecological procedures to allow for improved cosmetic outcomes. Adequate surgical access can be maintained, with no complications occurring in this cohort.

- 1 'Davinci Xi Clinical Specialty Guide,' 2017 Intuitive Surgical Inc.
- 2 Goebel, K, Goldberg, J. (2013) Women's Preference of Cosmetic Results After Gynecologic Surgery. *Journal of Minimally Invasive Gynecology* vol 21 no. 2, 64-67.
- 3 Lawrie, T., Hiu H., Lu, D., Dowswell, T., Song H., Wang, L., Shi, G., (2019) Robot-Assisted Surgery in Gynaecology. *Cochrane Database of Systematic Reviews*, 4: CD011422.DOI:10.1002/14651858.CD011422.pub2.

● AGES Annual Scientific Meeting 2022

Free Communications Awards cont.

AGES Outstanding Trainee Presentation

Identification of ureters with ICG dye in benign gynaecology

Tanushree Rao ¹, Cherynne Johansson ¹, Sophia Berkemeier ², Timothy Chang ²

¹ O&G, Advanced Minimally Invasive Gynaecological Surgery Unit, Liverpool Hospital, Sydney, NSW, Australia.

² Minimally Invasive Gynaecological Surgery Unit, Campbelltown- Liverpool Hospital, Sydney, NSW, Australia

INTRODUCTION: Ureteric injury occurs in 1-2 percent of women in gynaecology. (1) Attempts have been undertaken intraoperatively to locate the ureter in order to minimise the risk of damage. The ureter can be identified by placing ureteral stents, infrared-lit stents, or injecting methylene blue. When stents are inserted, however, the ureters' pliability during mobilisation is reduced, and the risk of ascending infection is increased.

OBJECTIVE: The purpose of this video is to demonstrate the use of ICG dye to identify and facilitate dissection of ureters in endometriosis. It is particularly useful in challenging cases where the ureter cannot be detected transperitoneally or has altered anatomy due to endometriosis, multifibroid uterus, or malignancy, among other indications.

DESIGN: Technical video demonstrating the laparoscopic identification of ureters with ICG dye (Canadian Task Force classification level III).

SETTING: Minimally Invasive Surgery Gynaecology Unit, Liverpool Hospital.

INTERVENTIONS: Indocyanine green (ICG) is a fluorescent dye that, when activated with a specific wavelength of near-infrared (NIR) light, permits the exact measurement of tissue vascularization in real time during surgery. ICG has been used in a variety of specialities, including colorectal surgery (lower anterior resection/right hemicolectomy) to assess the perfusion of the anastomoses, oncology (sentinel mapping of endometrial/gastric/esophageal cancer lymph nodes), thyroid surgery (viewing all four parathyroid glands following thyroidectomy), plastic surgery (flap harvesting and identification of perforators), thoracic segmentectomy (where it stains segments with no tumor) and in partial nephrectomy (to differentiate renal cortical tumours from normal renal parenchyma) amongst others. This video presents one of its uses in benign gynaecology.

We used the Stryker 1688 4K camera system with the "ICG Overlay" option. A rigid cystoscopy (22 Fr) was done, and a 5 Fr open-ended ureteral catheter was inserted upto 20 cm. 5 mL of 2.5 mg/mL ICG was gently administered into the ureteral orifice while the ureteral catheter was withdrawn. No stents were retained. A near-infrared laser fluorescence camera was used to detect intraurethral ICG. In our case, ICG was visible for up to 6 hours following instillation.

CONCLUSIONS: We discovered that ICG is a useful method for identifying ureters in challenging situations, particularly those with retroperitoneal fibrosis.

1. Manoucheri E, Cohen SL, Sandberg EM, Kibel AS, Einarsson J: **Ureteral injury in laparoscopic gynecologic surgery.** *Rev Obstet Gynecol* 2012, 5:106-111.

● AGES Annual Scientific Meeting 2022

Free Communications Awards cont.

AGES Outstanding New Presenter

Oral Glucose Tolerance Tests and Lower Urinary Tract Dysfunction

Candice Anderson¹, Ajay Rane¹, Dhivya Thangavel¹

¹ Townsville University Hospital, Douglas, QUEENSLAND, Australia

INTRODUCTION: Clinical practice has shown that as a result of dysfunction within the lower urinary tract or lower urinary tract dysfunction (LUTD) women may experience recurrent urinary tract infections (UTIs), interstitial cystitis, prolapse, overactive bladder, stress incontinence, or a neurogenic bladder. Previous research has shown that there is a gap in knowledge of the relationship between LUTD and glucose intolerance.

AIM: The aim of this study was to guide the review of clinical practice for lower urinary tract dysfunction.

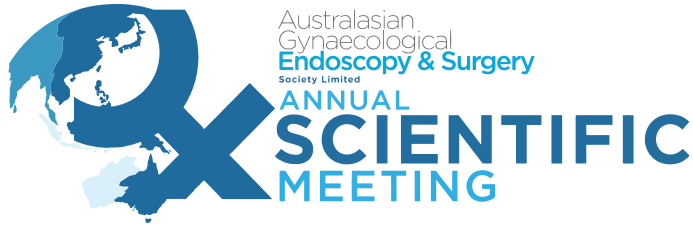
METHODS: The study population included 143 patients who had presented with a lower urinary tract dysfunction and had been ordered an OGTT from 1st January 2018 until 30th August 2021.

RESULTS: 58% of patients that presented with a lower urinary tract dysfunction had an abnormal OGTT. Glucose intolerance and impaired fasting glucose may increase the risk of developing recurrent UTIs (RR=1.56), stress incontinence (RR=1.73), and overactive bladder (RR=1.24). Glucose intolerance and impaired fasting glucose did not increase the risk of developing interstitial cystitis (RR= 0.68) and prolapse (RR=0.72).

CONCLUSION: This study highlights an important association between the development of lower urinary tract dysfunction and metabolic syndrome. The data conveys that a positive OGTT is associated with recurrent UTIs, stress incontinence, and overactive bladder and may not be associated with interstitial cystitis and prolapse. Recommendations for future research include studies with a larger population to formally assess this association and to determine whether patients may benefit from being started on glucose lowering medications.



MARCH 2023
09-11
Sydney



Evolution not Revolution!

It will have been three years since the last ASM in Sydney, the last conference prior to the pandemic – and what an ordeal it has been! Once again, we look forward to welcoming you back to Sydney, for the AGES XXXIII Annual Scientific Meeting “*Evolution not Revolution*” to be held from the 9th to the 11th of March 2023.

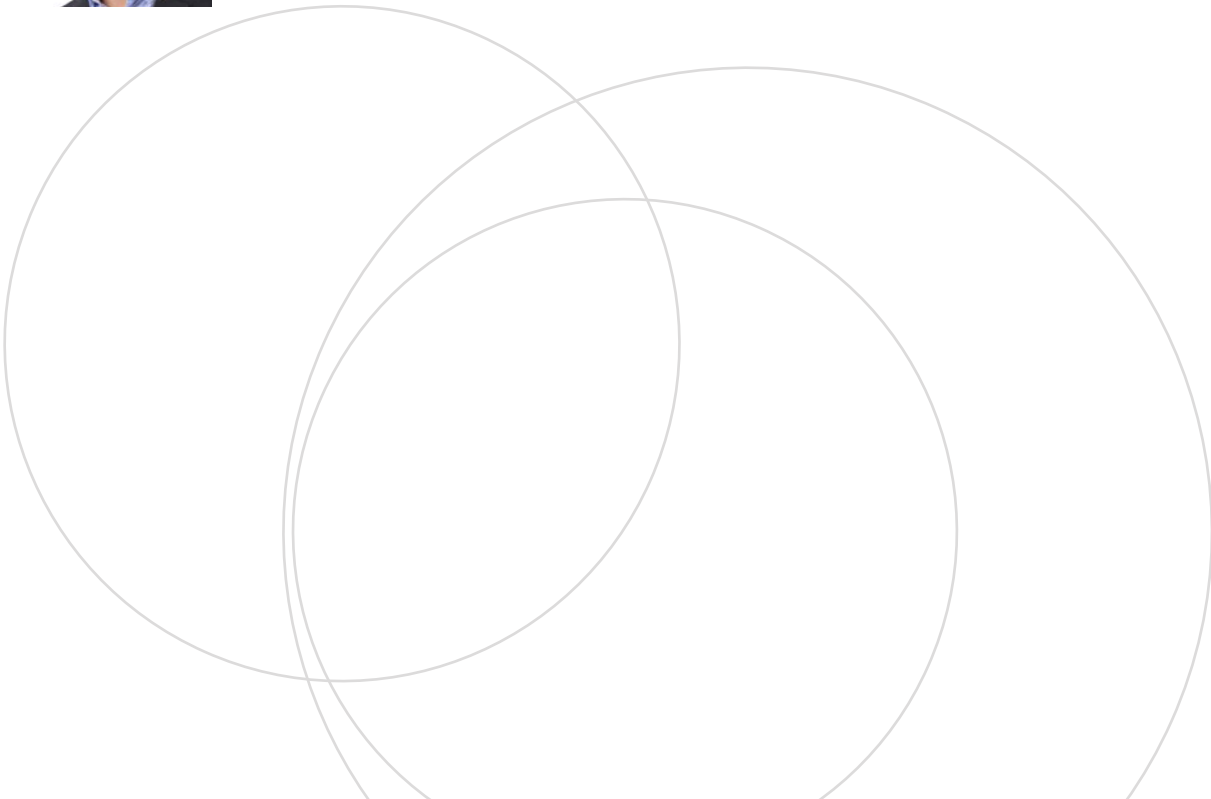
The theme “*Evolution not Revolution*” encompasses the idea that progress is often dependent on the past, and that we cannot have the *new* without the *old*. We will explore the latest of the core topics of gynaecology, such as endometriosis and adenomyosis, as well as some of the new challenges that we are faced with, including social media and training. The aim of the theme is to equip us to stay abreast of the latest evidence whilst challenging us to better each of us as individuals and as a society.

The AGES ASM 2023 scientific committee has developed an engaging program showcasing a spectacular team of local and international speakers, including Mats Brännström and his team from Sweden, and Carla Tomassetti from Belgium. This is a meeting not to be missed!

We look forward to seeing you all in Sydney in March 2023.



Bassem Gerges
ASM 2023 Conference Chair
AGES Hon. Secretary



Evolution

not

Revolution

Hyatt Regency Sydney

Medtronic

Platinum Education Partner of AGES

**9 - 11
March
2023**



Australasian Gynaecological **Endoscopy & Surgery**
Society Limited

AGES XXXIII ANNUAL SCIENTIFIC MEETING

Wednesday 8th March 2023 - Pre-conference Workshop

AEDT HYATT REGENCY SYDNEY, NSW

0800 - 1700 AGES AATP Workshop (Invite Only)

AEDT

Thursday 9th March 2023 - Day one

AEDT HYATT REGENCY SYDNEY, NSW

0700 - 0800 Registration

0800 - 0930 **SESSION ONE: THE BIG BANG - WHERE ARE WE NOW?**

Welcome to Country

It's here... Uterine transplants

Evidence for laparoscopy in endometriosis management

Panel Discussion

0930 - 1030 **SESSION TWO: CHAIRMAN'S CHOICE**

1030 - 1100 MORNING TEA, TRADE EXHIBITION & DIGITAL FREE COMMUNICATIONS

1100 - 1230 **SESSION THREE A: IN THE BEGINNING... EARLY PREGNANCY ISSUES FOR LAPAROSCOPISTS**

SESSION THREE B: LES MISERABLES - HOW TO MANAGE A SOCIAL MEDIA REVOLUTION AGAINST YOU

Uterine transplant pregnancy considerations

Evolution of social media

Hysteroscopy for miscarriage

Responsible data management

Getting out of a tricky situation - Ovarian and cornual ectopics

Managing your social media presence

Caesarean section niches - When and how?

Dealing with Internet Trolls

Uterine anomalies: To operate or not

Too much of a good thing - Negative impacts of social media on health

Panel discussion

Panel discussion

1230 - 1330 LUNCH, TRADE EXHIBITION & DIGITAL FREE COMMUNICATIONS

1330 - 1500 **SESSION FOUR A: FREE COMMUNICATIONS**

SESSION FOUR B: FREE COMMUNICATIONS

SESSION FOUR C: FREE COMMUNICATIONS

1500 - 1530 AFTERNOON TEA, TRADE EXHIBITION & DIGITAL FREE COMMUNICATIONS

1530 - 1700 **SESSION FIVE: TURNING THE SPOTLIGHT ON ENDOMETRIOSIS**

Endometriosis fertility index - Is it relevant and how should we use it?

Pre-operative ultrasound classification systems for planning endometriosis surgery

Evolution of bowel endometriosis surgery/ hydrodissection/ double shaving

	Update on endometriosis centers in Australia
	Endometriosis - The colorectal perspective
	Panel Discussion
1700	CLOSE OF DAY ONE
1700 - 1800	WELCOME RECEPTION
AEDT	

Friday 10th March 2023 - Day two

AEDT	HYATT REGENCY SYDNEY, NSW	
0730 - 0800	Registration	
0800 - 1000	SESSION SIX: LIVE SURGERY	
1000 - 1030	MORNING TEA, TRADE EXHIBITION & DIGITAL FREE COMMUNICATIONS	
1030 - 1230	SESSION SEVEN A: A SOLUTION TO AN OLD PROBLEM	SESSION SEVEN B: THE ADENOMYOSIS CONUNDRUM
	Major vessel injury at laparoscopy: Dos and don'ts	Adenomyosis and Endometriosis - Same same but different?
	Hand assisted laparoscopic surgery	Hysterectomy for the diagnosis of adenomyosis? Imaging vs Histopathology
	The Burch in 2022	Hormonal therapy for adenomyosis - Where are we now?
	Laparoscopy vs laparotomy in oncology - What is best for the patient?	Adenomyosis - Is surgery an option?
	From go to whoa, developing and applying new surgical techniques	Fertility and adenomyosis
	Ovarian anatomy and risk reducing BSO technique	Put the knife down! Interventional radiology for adenomyosis
	Panel Discussion	Panel Discussion
1230 - 1330	LUNCH, TRADE EXHIBITION & DIGITAL FREE COMMUNICATIONS	
1330 - 1530	SESSION EIGHT: INDUSTRY PARTNER WORKSHOP SESSIONS	
1530 - 1600	AFTERNOON TEA, TRADE EXHIBITION & DIGITAL FREE COMMUNICATIONS	
1600 - 1700	SESSION NINE	
	Dan O'Connor Perpetual Lecture	
	Panel Discussion	
1700	CLOSE OF DAY TWO	
1700 - 1800	AGES ANNUAL GENERAL MEETING	
1900 - 2230	AGES ANNUAL BLACK TIE GALA DINNER, AWARDS & CHARITY AUCTION	
AEDT		

Saturday 11th March 2023 - Day Three

AEDT	HYATT REGENCY SYDNEY, NSW	
0730 - 0820	SurgicalPerfarmace breakfast session	
0800 - 0830	Registration	
0830 - 1010	SESSION TEN: BEYOND MEDICINE...	
	Closing as many gaps as possible; gynaecology for the indigenous population	
	Words matter - The language of LGBTQIA	
	Trans men and healthcare... Gender affirming surgery	
	Not just trainees	
	Migrant/Refugee Health provision	
	Athletics and gynaecology	
	Panel Discussion	
1010 - 1040	MORNING TEA & TRADE EXHIBITION	
1040 - 1120	SESSION ELEVEN A: NOT JUST A NEW GIMMICK - ADVANCEMENTS OF TECHNOLOGY	SESSION ELEVEN B: SURGICAL PROFESSIONALISM, PROFICIENCY AND PERFECTION
	The Robot revolution	Quality versus Quantity and alternative avenues to stay afloat
	Surgical site infections	The numbers speak for themselves
	Advancements in non-surgical management of pelvic pain	Reducing the impact of surgery
	Artificial intelligence and Machine Learning in medicine	Looking back to move forward
	Interventional radiology in gynaecology	What about me? The art and science of working mindfully
	Panel Discussion	Panel Discussion
1120 - 1305	SESSION TWELVE: PELVIC PAIN: EACH TO THEIR OWN OR ONE FOR ALL?	
	Teamwork makes the dream work... Who makes up a pelvic pain team?	
	Just loosen up! The role of the women's health physio in pelvic pain	
	"The Endometriosis diet" - Is there one?	
	Explaining pain, the psychologists role in pain management	
	Panel Discussion	
1305 - 1335	SESSION THIRTEEN: "PLEASE, YOUR HONOUR..."	
1335	CLOSE OF CONFERENCE	
1335 - 1400	LUNCH ON THE GO	
AEDT		

Program correct at time of publication and subject to change without notice. Updates available on the AGES website.

● Endoscopic Surgery Advisory Committee (ESAC)

CHAIR:



Michael Wynn-Williams

AGES COMMITTEE MEMBERS:



Helen Green



Rachel Green



Stephen Lyons
(AGES President –
ex-officio member)

ESAC is a combined RANZCOG/AGES Committee that was established in 2015 to advise the RANZCOG and AGES Boards on matters relevant to hysteroscopic and laparoscopic surgery, which includes prevocational training, core training, advanced training and post-FRANZCOG training. The committee also reviews existing and develops new College statements, guidelines and other types of advice (e.g., College Communiqués) on the provision of hysteroscopic and laparoscopic surgery. Finally it also reviews existing and develops new patient education material on hysteroscopic and laparoscopic surgery.

The ESAC committee meets three times a year and is currently reviewing a number of RANZCOG statements and Guidelines, including; Best practice statement “Power morcellation at Minimally Invasive Procedures”, RANZCOG patient information sheet – “Tubal Ligation”, RANZCOG clinical guidance statement – “Managing the Adnexae at the time of Hysterectomy for Benign Gynaecological Disease” and finally the RANZCOG/AGES “Position statement on robotic-assisted laparoscopy”.

Join us on the AGES social media sites ...



Facebook:

facebook.com/agessociety



LinkedIn:

[linkedin.com/company/
ages---australasian-
gynaecological-endoscopy-
and-surgery-society-limited](https://linkedin.com/company/ages---australasian-gynaecological-endoscopy-and-surgery-society-limited)



Instagram:

[@ages_society
instagram.com/ages_society](https://instagram.com/ages_society)

● How AGES members use SurgicalPerformance to claim CPD with RANZCOG

This article informs you about two important changes.

First, the business model between SurgicalPerformance and AGES will change. In recognising how important self-reflection is for O&G's like us, AGES provided financial support to subsidise its members' SurgicalPerformance subscription for the last 6 years. This will change from 1 January 2023. Given that AGES and SurgicalPerformance have a long-standing productive relationship, AGES members are invited to take advantage of an exclusive 50% discount off the regular subscription fee for a full SurgicalPerformance subscription. To do so, AGES members will need to [confirm that they are financial AGES members](#) to receive a user-unique coupon code to claim that discount.

Please renew your existing SurgicalPerformance subscription before it will be paused on 10 FEB 2023. For help, email us on support@surgicalperformance.com or visit us at the AGES ASM in Sydney from 9th to 11th of March 2023. Gillian and Rebecca will be delighted to assist if required.

Secondly, the importance of self-reflection and keeping your own data for you to check and compare, has also been recognised by RANZCOG, which allows SurgicalPerformance users to earn CPD hours through SurgicalPerformance (mostly in the challenging OM category). Here we explain how it is easily done.

Prior to the most recent CPD changes in June 2022, SurgicalPerformance users were able to claim 1 point for every 12 cases entered into SurgicalPerformance. Now you can claim 1 hour for every 6 cases.

In the new CPD system (starting from 1 July 2022), a total of 50 hours are required per annum. RANZCOG recognizes three ways that CPD hours can be earned with SurgicalPerformance:

- 1. Outcome Measurement (OM):** For every 6 cases in SurgicalPerformance, you can claim 1 CPD hour in OM. However, these SurgicalPerformance cases need to have completed a 4 to 6 weeks follow up. A minimum of 12 cases/2 hours are required to claim CPD. For RANZCOG, you need to claim a **minimum of 5 hours** (30 cases) and a **maximum of 30 hours** (180 cases) in the OM category.
- 2. Performance Review (PR):** You can claim up to 3 CPD hours by reviewing your SurgicalPerformance outcomes data with a peer (colleague).
- 3. Evaluation of SurgicalPerformance:** By evaluating SurgicalPerformance, you can claim an additional 2 hours CPD. Click to access the [evaluation form](#).

RANZCOG acknowledges that quantified self-reflection is critically important for clinicians like us. So that we know how our patients are doing. So that we know that our outcomes are within the expected bandwidth. RANZCOG also recognises that while data entry is not reflection per se, it is a required activity without which reflection cannot take place. RANZCOG accepts that clinicians who enter cases into SurgicalPerformance are likely performance-minded and RANZCOG supports their members' efforts to constantly check how they could perform better.

Table 1: Annual allocation of hours for Outcome Measurement (OM) and Performance Review (PR)

Total (hours)	Educational activities	Outcome Measurement (OM)	Performance Review (PR)	Remaining OM/PR	Remaining
Hours	Hours	Hours	Hours	Hours	Hours
50	13	5	5	16	11



● How AGES members use SurgicalPerformance to claim CPD with RANZCOG cont

What does this mean to you?

O&G specialists can earn 35 out of the 50 required RANZCOG CPD hours by using SurgicalPerformance.

HOW YOU DO THIS:

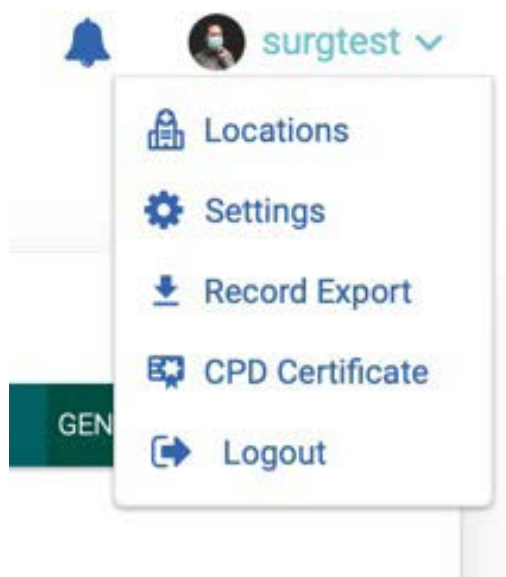
1. Login to your SurgicalPerformance account
2. You will automatically be directed to the Dashboard page
3. On this page scroll down until you can see the box "CPD points". Click on it. A larger window will open. You can adjust the CPD period "From – To" date period, which you set to your CPD period (for example: 1 July 2022 – 31 December 2023). SurgicalPerformance will automatically suggest how many actual CPD hours you earned in the Outcome Measurement (OM) category (you will be granted 1 hour for every 6 cases entered) and how many potential CPD hours you could be granted when you complete the 4 to 6 weeks follow up.
4. To claim **Outcome Measurement (OM)**, click on your SurgicalPerformance user ID (right hand top corner of the screen). A menu will open and you select "CPD certificate". Your certificate will appear, which you can print or upload to the RANZCOG CPD portal (myranzocg.edu.au); add an activity; click on "Outcome Measurement (OM)"; select *Surgical Audit*. Add the SurgicalPerformance CPD certificate as an attachment.

5. The "CPD certificate" will update automatically (real-time) and can be found (once you logged in) when you click on the menu in the top right hand corner of your screen. You can print it and attach it as a pdf when you claim your CPD with RANZCOG.
6. To claim **Performance Review (PR)** hours, you discuss your SurgicalPerformance outcomes with peers or colleagues. Then you log-in to my.ranzocg.edu.au; add an activity; click on Performance Review and select "Peer review / feedback of own performance". You can claim a max of 3 CPD hours.
7. To claim further **Performance Review (PR)** hours from evaluating SurgicalPerformance, download the [Evaluation form](#) and complete it. Then you log-in to my.ranzocg.edu.au; add an activity; click on Performance Review, select "Self-evaluation and reflection for any activity" and attach it as evidence for completion. You can claim a max of 2 CPD hours.

"Since I use SurgicalPerformance, I have no issue with CPD points any longer. It assures me that my patients are doing OK and for that I earn CPD".

Using [SurgicalPerformance](#) makes the claiming of CPD points an easy task.

Start your 10-case Free Trial with [SurgicalPerformance](#) today.



● JMIG Summaries: the best bits of the most interesting recent papers

Dr Kiran Vanza and Dr Dhivya Thangavel

VERY LOW RATES OF URETERAL INJURY IN LAPAROSCOPIC HYSTERECTOMY PERFORMED BY FELLOWSHIP-TRAINED MINIMALLY INVASIVE GYNECOLOGIC SURGEONS

Shabnam Gupta, MD, Parmida Maghsoudlou, BA, Mobolaji Ajao, MD, MPH, Jon I. Einarsson, MD, PhD, MPH, and Louise P. King, MD, JD

J Minim Invasive Gynecol. 2022 Sept;29(9):1099-1103.

Introduction: Studies have shown that gynaecologic surgeons incur most ureteral injuries (64-82%), compared to specialities with longer training requirements including colorectal, vascular pelvic and urologic surgery (11 to 30%). Hysterectomy is one of the most commonly performed gynaecologic procedures with laparoscopic hysterectomy being preferred due to improved patient outcomes. There is no reliable estimate of ureteral injury with laparoscopic hysterectomy. Heterogenous studies report incidences ranging from 0.08% to 1.8%. No study has evaluated the effect of surgical training and volume on rates of ureteral injuries.

Aim: Evaluate the rates of ureteral injury at the time of laparoscopic hysterectomy among high-volume fellowship-trained surgeons.

Material and Methods: Retrospective chart review was performed, evaluating gynaecologic surgery cases between 2009 and 2019 performed exclusively by 5 different fellowship-trained surgeons in Minimally Invasive Gynaecologic Surgery (MIGS) division at the Brigham and Women's Hospital and Brigham and Women's Faulkner Hospital, Boston. Each surgeon has completed fellowship training and routinely performed greater than 50 hysterectomies per year. All benign laparoscopic hysterectomy cases were identified from this cohort. Laparoscopic-assisted vaginal hysterectomy cases were excluded.

Results: A total of 5160 cases were handled by MIGS surgeons between 2009 and 2019. Of these, 2345 were identified as laparoscopic hysterectomies with available intraoperative and postoperative documentation (including 1753 total and 592 subtotal hysterectomies). 1 ureteral injury (0.04%) was noted intraoperatively. No delayed ureteric injuries were observed. The median age of

patients was 46 years, with the majority being Caucasian race (72.0%) and median body mass index reported as 15.4 kg/m². Most patients had undergone previous surgery (64.9%). The most common indication for hysterectomy was uterine myomas (47.7%), pelvic pain/endometriosis (36.8%), abnormal uterine bleeding (35.1%) and other diagnoses (10.7%). Uterine weight ranged from 10 g to 3400 g, with a median weight of 201.5 g. Median operating time was 102 minutes (range 28-387 min) and median blood loss was 50mL (range 0-2000mL). Most patients were discharged home on the same day (64.9%).

Discussion: This study demonstrates the benefits of fellowship training and high-volume practice on patient outcomes and public health measures. This may be related to additional fellowship training with a strong focus on retroperitoneal dissection and maintenance of high-volume surgical practice. If all hysterectomies were performed by MIGS surgeons, the annual cost savings from a significant reduction in ureteral injury would be immense. High-volume surgeons have superior outcomes for the same procedures compared to low-volume surgeons (1 hysterectomy/month). Very-low volume surgeons had significantly higher overall complication rates including higher rates of transfusion, longer length of stay, excessive hospital charges and higher mortality rates. It is difficult to isolate volume and training/experience. Limitations of this study include its single institution and retrospective nature. Evaluation outcomes of high-volume surgeons without the additional fellowship training could help elucidate the impact and benefit of additional training vs surgical volume as independent risk factors, however this would be difficult to design and expensive.

Conclusion: High-volume fellowship trained surgeons have a lower rate of ureteral injury.



INDIVIDUALIZED ASSESSMENT OF RISK OF COMPLICATIONS AFTER BENIGN HYSTERECTOMY

Allison DeLong, Lindsay Shirreff, Ally Murji, John J. Matelski, Jessica Pudwell, and Olga Bougie
J Minim Invasive Gynecol. 2022 Aug;29(8):976-983. doi: 10.1016/j.jmig.2022.04.016.Epub 2022 Apr 30.

Introduction: Hysterectomy is a commonly performed major gynaecologic surgery. It is an effective management option for a number of benign gynecologic conditions, but it is not without surgical risks. It is important for the surgeon to provide individualized counselling with respect to surgical risk. Thus, it would be valuable to have a risk prediction model that considers important predictive factors and identify risk factors that can be modified to optimize outcomes.

Aim: The primary objective of this study was to identify patient characteristics associated with postoperative complications or readmissions after hysterectomy by any route for a benign indication.

Material and Methods: A multicenter retrospective cohort study was conducted, including all hysterectomies performed between July 2016 and June 2019 in 7 hospitals in Ontario, Canada. The data extracted for this study were taken from the Surgical Gynecologic Scorecard Database (SGSD). Two outcomes of interest were considered: (1) complications grade II or greater and (2) emergency room visits or hospital readmissions within 6 weeks after operation. Patient complications were graded on the Clavien-Dindo surgical complications classification scale from I to V. Only factors predictive of complications grade II or higher were included in the model. Grade II complications are defined as any alteration to the normal postoperative course including pharmacologic management and blood transfusion.

Results: A total of 2792 patients were included in the data analysis. On average, patients were aged 52.6, with a BMI of 29. The most common indications for surgery were abnormal uterine bleeding (33.3%) and myomas (33.6%). The overall proportion of complication in the study cohort was 13.7%, grade II or higher complications occurred in 9.8% of patients, and emergency room visits or readmission occurred in 7.8%. Complication rate was highest for abdominal procedures compared with laparoscopic 13.1% and vaginal 7.3% routes.

In this study, the following risk factors were associated with increased odds of surgical complications: caesarean

delivery, American Society of Anesthesiologists class ≥ 3 , preoperative anaemia, and laparotomic surgical approach. Preoperative indication of abnormal uterine bleeding was associated with decreased odds of experiencing a complication compared with all other preoperative diagnoses.

Perioperative complications, preoperative anaemia, preoperative diagnosis of endometriosis/pelvic pain, or procedure performed vaginally or open were associated with increased odds of presentation to the emergency room or a readmission to hospital. Increasing patient age was associated with decreased odds of emergency room visit or readmission.

Discussion: The complication rate of 13.7% observed in this study is comparable to that reported in previous literature examining rate of complications after hysterectomy. Two important modifiable risk factors of surgical complications identified in the study were preoperative anaemia and the ASA score. These variables can be used to preoperatively optimize patients to decrease the risk of surgery.

Previous population studies identified that preoperative anaemia is associated with increased morbidity and mortality, yet 1 in 5 people presenting for a hysterectomy is anaemic. Reasons for this high rate may include anaemia not being diagnosed with time to correct it before surgery, reluctance to postpone elective surgery, barriers to accessing effective management of heavy menstrual bleeding, and inadequate use of iron supplementation.

The ASA score assigned to a patient captures the medical comorbidities that patients have, and the higher the score, the greater the extent or consequences of the disease. By optimizing the control of their comorbidities and lowering their ASA score, patient outcomes can be improved. Patients who have a high ASA category due to a condition that is not deemed modifiable may alternatively re-evaluate their decision to proceed with surgery and may choose alternative options of management, particularly for benign gynecologic conditions.

Interestingly, elevated BMI did not show statistically significant increased odds of complication after a hysterectomy. With obesity becoming increasingly prevalent in society, perhaps surgical teams are trained to manage these patients and are selecting an optimal surgical approach to minimize the risk.

Conclusion: This study identified several risk factors for complications after hysterectomy. The utility of these data is important to help improve counselling for patients undergoing a hysterectomy and potentially optimize modifiable risk factors when identified preoperatively.

RATES OF COMPLICATIONS AND REOPERATION AFTER MYOMECTOMY—THE IMPACT OF SURGICAL APPROACH: A STATEWIDE POPULATION-BASED COHORT STUDY FROM 2005–2018

Sarah Simko, MD, MPH, Kai Dallas, MD, Andrea L. Molina, MD, Matthew T. Siedhoff, MD, Kelly N. Wright, MD, Jennifer T. Anger, MD, and Mireille D. Truong, MD

From the Department of Obstetrics and Gynecology, Adventist Health White Memorial Medical Center (Dr. Simko), University of California San Diego, Los Angeles, California, Division of Urology, Department of Surgery, City of Hope Medical Center (Dr. Dallas), University of California San Diego, Los Angeles, California, Department of Obstetrics and Gynecology, Cedars-Sinai Medical Center (Drs. Molina, Siedhoff, Wright, and Truong), University of California San Diego, Los Angeles, California, and Division of Urology, Department of Surgery, University of California San Diego (Dr. Anger), Los Angeles, California

This was a population-based cohort study that looked at the rates of and factors associated with complications and reoperation after myomectomy. The primary outcomes included complications within 60 days of surgery and reoperations for myomas. Patients were followed up for a mean of 7.3 years.

($p < 0.001$). Factors associated with reoperation included obesity (OR, 1.20; CI, 1.11–1.31; $p < .001$), DM (OR, 1.32; CI, 1.20–1.46; $p < .001$), HTN (OR, 1.28; CI, 1.20–1.36; $p < .001$), CAD (OR, 2.39; CI, 1.76–3.25; $p < .001$), and Medicare insurance (OR, 2.63; CI, 2.40–2.88; $p < .001$).

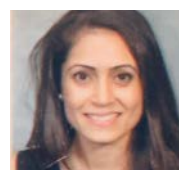
A total of 66012 myomectomies were performed over 13 years. The overall complication rate was 8%. Subjects experienced fewer complications with a minimally invasive approach than with the abdominal approach. The odds of complications associated with a minimally invasive approach decreased yearly compared with those associated with an abdominal myomectomy. The mortality rate was one death per 100000 per year for abdominal myomectomy cases. Patient demographics associated with increased complications included age (OR, 1.01 CI, 1.01–1.01, $p < 0.001$), obesity (OR 1.26, CI, 1.12–1.42, $p < 0.001$), diabetes (OR 1.31, CI 1.15–1.49, $p < 0.001$), CAD (OR 4.80, CI 3.52–6.56, $p < 0.001$), black (OR, 1.54; CI, 1.42–1.67; $p < .001$), and Asian (OR, 1.22; CI, 1.11–1.33; $p < .001$).

There are important limitations to the study to note, including limitations of administrative data and certain factors that are difficult to control, such as myoma burden and location, uterine size, and surgeon experience. Furthermore, robotic-assisted myomectomies could not be differentiated from laparoscopic myomectomies. Nonetheless, despite these limitations, this was still a large multicentre population-based study and the only study to evaluate trends of complications in women undergoing myomectomy.

Patients who were not privately insured or had procedures at an academic institution had higher complication rates. Facilities with high surgical volume had decreased complication rates.

The study suggests minimally invasive myomectomy should be considered a lasting and safe approach in properly selected patients.

The overall reoperation rate was 26.3%, with a mean time to repeat surgery of 4.4 years. Reoperations occurred in 19.9% of patients after a minimally invasive myomectomy and in 27.3% of patients after abdominal myomectomy



Dr Kiran Vanza
Laparoscopic Fellow,
Sydney West Advanced Pelvic
Surgery Unit, Sydney NSW



Dr Dhivya Thangavel
Laparoscopic Fellow,
Sydney West Advanced Pelvic
Surgery Unit, Sydney NSW



JULY 2023
06-07
Hyatt Regency Bangkok
Sukhumvit



Sawadee Kha

Welcome to Focus meeting 2023 in the vibrant city of Bangkok.

This is our first partner meeting with AAGL and I extend a warm welcome to Dr Andrew Sokol AAGL Vice President and my co-chair of this meeting. By partner with AAGL we have been able to extend our welcome to a faculty comprised of AGES and AAGL board, as well as other invited speakers.

The Theme of this meeting is "The Modern Muse". This theme fits well in the city of Bangkok. This will allow us to explore several session topics including "Amusing surgical management – The modern OR", "Museum of modern medications" and transgender medicine to mention just a few. This will be a full 2-day meeting that will appeal to a broad range of OBGYN specialists. The sessions will cover some very practical topics and tips as well as some interesting and engaging topics.

The venue for the meeting is the Hyatt Regency Sukhumvit. This brand-new boutique hotel is situated right in the heart of Sukhumvit with the hustle and bustle of Bangkok on the doorstep. This wonderful venue has state of the art facilities topped off by the wonderful and warm Thai hospitality. We will be very well looked after. As usual there will be an excellent and engaging scientific program, coupled with the chance of international travel. There will be conference dinner to remember with traditional cuisine and the opportunity to network with old and new friends.

I look forward to welcoming you all in Bangkok



Dr Rachel Green

Focus meeting 23 co-chair
AGES Vice-President

● Surviving Medicare scrutiny: top five tips to ensure your records are compliant

Ruanne Brell Senior Legal Advisor,
Advocacy Education and Research at Avant

Case study

A review of a surgeon's Medicare billings by the Professional Services Review (PSR) Director raised concerns that records of consultations and procedures were inadequate or non-existent. Clinical input was found to be inadequate or inadequately recorded. Not all services were clinically indicated and the practitioner appeared to have proceeded straight to surgical options ahead of conservative treatment for what appeared to be mild symptoms. Consent to procedures was either not obtained or not adequately recorded. MBS item requirements were not met for many services.

The practitioner acknowledged engaging in inappropriate practice and agreed to repay \$500,000. They were also reprimanded and disqualified from billing certain MBS items for a period of 12 months.

Although Medicare is a complex system the vast majority of practitioners utilise it correctly to provide care to the Australian community. Those who are found to be non-compliant often do so inadvertently.

Based on a review of PSR reports and Avant's experience assisting members, we have identified our top five tips to help you to avoid common Medicare billing issues.

1. Keep careful records

One of the most common issues we see is a doctor's medical records not supporting the services billed.

When you make a Medicare claim for a service you must maintain an adequate and contemporaneous medical record that demonstrates the service was provided. Inadequate record keeping not only breaches a doctor's legal and professional responsibilities to maintain adequate patient records, it can also result in a finding that the benefit for those services should not have been paid. The government will seek repayment of the full amount of the Medicare benefits paid for the service.

To satisfy Medicare requirements, your records need to identify the patient and include a separate entry for each attendance by the patient for a service.

Make sure you record enough details that if your records are reviewed it will be clear why the service was needed, what clinical input you provided and why the particular item number was billed.

Take particular care to record your consent discussion, including your discussion about alternative treatment options and the patient's consent to the treatment or procedure.

If the item number has a minimum time component ensure the time spent is recorded. This can be done either in the progress notes or in the medical record keeping system. However, it is not enough to select the item number for that consultation length. The notes also need to justify spending that amount of time with the patient, so they must reflect the clinical content of the service to support the time element.

2. Understand the item number requirements

As the provider, you are responsible for claims to Medicare made under your provider number. You need to be sure you are applying the correct item numbers and that your consultation with the patient covers the elements required for you to charge those item numbers.

Descriptors do change and descriptions can be nuanced, so it is also a good idea to check the full item descriptor, even of item numbers you use regularly. Check with the government email advice service [askMBS](#) if you are unsure.

Surviving Medicare scrutiny: top five tips to ensure your records are compliant cont.

Ruanne Brell

3. Take special care to record referrals

Items 104 and 110 have been a focus of PSR reviews involving multiple specialities. The PSR has flagged that these items require an actual consultation with the specialist whose provider number is being used. Concerns raised by the PSR about these item numbers included:

- » billing a personal attendance when another practitioner has attended the patient
- » co-billing a consultation with a procedural service when the record did not support that a separate consultation was performed or necessary
- » lack of evidence of a referral requesting a specialist consultation
- » no record or inadequate records of an attendance or patient consultation
- » clinical input concerns in relation to the consultation content
- » inadequate communication of consultation outcomes to the referring practitioner.

4. Check all billings made under your provider number

You will be accountable for all services billed under your provider number and you are expected to make the decision about which item numbers to claim.

It can be helpful to have hospital or practice administrative staff submit claims for you, but make sure the process allows you to check and approve any claims billed under your number.

If you are concerned that your provider number may have been used to make incorrect claims, contact Avant.

Medicare claims can be audited after you have left your current practice, so keep a copy of all reports of claims submitted under your number for at least two years in case any are questioned in future.

5. Keep up to date with peers and ask for feedback

Medicare requires that services billed be clinically relevant, so it is important to keep up to date and ensure your practice is in line with commonly accepted standards.

Being aware of your peers' practices can also help ensure your Medicare billing is consistent, or that you are aware of differences and can explain any unique features of your practice.

However, you are always responsible for your own billings so make sure you check the item numbers yourself and don't rely on hearsay or 'corridor advice' as to what you should be billing.

Conclusion

While the prospect of a Medicare compliance audit can seem daunting, by following some principles of good practice and careful record keeping you will be better placed to avoid scrutiny of your billings or address any concerns.

REFERENCES AND FURTHER READING

Department of Health – [AskMBS Email Advice Service](#)

ABOUT THE AUTHOR

RUANNE BRELL is a senior legal advisor in the Advocacy, Education and Research team at Avant with almost 20 years' experience in health and medical law.

Disclaimer: This article is intended to provide commentary and general information. It does not constitute legal or medical advice. You should seek legal or other professional advice before relying on any content, and practise proper clinical decision making with regard to the individual circumstances.



Ruanne Brell

Senior Legal Advisor,
Advocacy Education and Research
at Avant

● Interstitial and Cornual Ectopic Pregnancies – what are the options?

Dr Samuel Vo and A/Prof Harry Merkur

There are several definitions and interpretations for what constitutes a ‘cornual ectopic pregnancy’ compared to an ‘interstitial ectopic pregnancy’, as the literature on the topic often uses both terms interchangeably. While umbrella terms such as ‘utero-tubal ectopic pregnancies’ have been used to collectively include both as a way of simply describing the location of the pregnancy, it is important to understand the differences between the two entities, as counselling on management of each condition is markedly different.

Definitions

A cornual ectopic pregnancy refers to a pregnancy that implants and develops in superior-lateral regions in a uterus with a Mullerian tract abnormality, typically within the rudimentary horn or in one horn of a septate or bicornuate uterus^{1,2}. When there are clear differentiations between the definitions of both types of ectopic pregnancies, the reported incidence of cornual ectopic pregnancy is 1 in 76,000 to 1 in 140,000 pregnancies (0.000007 – 0.000013%)³.

An interstitial ectopic pregnancy refers to a pregnancy that is abnormally implanted in the proximal portion of the fallopian tube that lies within the wall of the uterus^{1,4}. The interstitial component of the fallopian tube measures 1 to 2cm in length and is surrounded by myometrial tissue, which can allow the pregnancy to distend to a greater diameter, delaying rupture up until 7 to 16 weeks gestation⁵. The incidence of interstitial pregnancy is between 1.0 – 6.3% of all ectopic pregnancies³.

Rupture of both interstitial and cornual ectopic pregnancies can lead to excessive haemorrhage, especially after 12 weeks of gestation, as there is an abundant blood supply to the cornual region of the uterus from branches of both uterine and ovarian vessels⁶, as well as the progressive increase in vascularisation to the pregnancy⁵.

Diagnostic Criteria

Ultrasonography is commonly used to diagnose ectopic pregnancy, and diagnostic criteria have been established to clearly separate the two conditions.

In keeping with the original definition of the cornual ectopic pregnancy, where the pregnancy is implanted in a congenitally abnormal uterus, there are three ultrasonographic criteria to make the diagnosis: a) the interstitial portion of the fallopian tube must be clearly visualised within the main uterine body, as this would exclude an interstitial ectopic pregnancy, b) the gestational sac is observed to be mobile, completely surrounded by myometrium on all sonographic views, and is separate from the uterus, and c) an adjoining vascular pedicle needs to be visualised between the gestational sac and the unicornuate uterus³.

Timor-Tritsch et al developed three ultrasonographic criteria for the diagnosis of interstitial ectopic pregnancy: a) the uterine cavity must be empty, b) the gestational sac identified must be lateral to the endometrial cavity and be at least 1cm from the lateral aspect of the uterus, and c) there must be myometrium of less than 5mm in width surrounding the gestational sac⁷. In addition to these three diagnostic criteria, Ackerman et al described an ultrasonographic finding known as the ‘interstitial line sign’ – a thin echogenic line that extends as a continuation from the uterine cavity to the edge of the interstitial pregnancy sac⁹. The ‘interstitial line sign’ can accurately diagnose an interstitial ectopic pregnancy with a sensitivity of 80% and a specificity of 98%⁸.

Cornual Ectopic Pregnancy Management

Due to the common practice of using the terms ‘interstitial ectopic pregnancy’ and ‘cornual ectopic pregnancy’ interchangeably in the literature, as well as the rarity of a true cornual ectopic pregnancy, there is limited conclusive evidence on management options besides surgery.

● Interstitial and Cornual Ectopic Pregnancies – what are the options? cont.

Dr Samuel Vo and A/Prof Harry Merkur

The general management of a cornual ectopic pregnancy is for surgical excision of the rudimentary horn due to risk of uterine rupture and other associated complications with a progressing pregnancy. The overall incidence of uterine rupture is 50% in a cornual ectopic pregnancy where the uterine horn communicates with the main uterine body, which increases to 70% in a uterus with a non-communicating horn ⁹.

There are a number of considerations that need to be taken into account when performing a surgical excision of the rudimentary horn. Firstly, identification of the ureter prior to excision is vital, as congenital urinary tract anomalies such as duplex ureter and renal pelvis, and renal agenesis, may be associated with the presence of a unicornuate uterus ¹⁰. Identification of the course of the ipsilateral ureter(s) either preoperatively or intraoperatively by ureterolysis prior to excision of the rudimentary horn prevents accidental iatrogenic ureteric injury. The utero-vesical fold peritoneum should be reflected caudally to minimise bladder injury.

The connection between the uterus and the rudimentary horn may be muscular or fibrous. Surgeons can use a combination of bipolar diathermy to coagulate the connection before excision and dissection with scissors using a harmonic electro-scalpel or monopolar energy with scissors ¹¹. The mesosalpinx should be dissected and haemostasis should be achieved by coagulation of any aberrant vessels supplying the rudimentary horn ⁹. If there is a thick connection of muscular tissue, removal may involve greater blood loss and longer operating time, and it is crucial to close the uterine myometrium properly to avoid future uterine rupture ¹¹.

While medical management of cornual ectopic pregnancy with methotrexate has been mentioned in the literature, this is largely limited to small number of case reports whereby methotrexate was administered in addition to other supportive pharmacological agents to facilitate a laparoscopic rudimentary horn excision, or success of the medical management was only confirmed after subsequent surgery for removal of the rudimentary horn ²².

Interstitial Ectopic Pregnancy Management

There is literature of varying quality on the surgical and non-surgical management of the interstitial ectopic pregnancy, which also includes studies that have used the term 'cornual ectopic pregnancy' while describing an interstitial pregnancy.

EXPECTANT MANAGEMENT

In the setting of interstitial ectopic pregnancies, expectant management may be an option if the patient is stable. There is only low quality evidence available on the success of expectant management of interstitial ectopic pregnancy, with the reported success rate of expectant management ranging between 22.2 to 89.5% ¹²⁻¹⁴. Cassik et al compared the initial median serum levels of β HCG from patients who had successful conservative management to those who failed in conservative management and found a statistically significant difference between the success group (β HCG 3126) and the failed group (β HCG 15,900) ¹³. They concluded that expectant management can be selectively used in cases where there are low initial β HCG levels on diagnosis, when the size of the interstitial ectopic pregnancy is small, or when the addition of methotrexate is unlikely to increase the success of non-surgical management (such as where a significant β HCG drop is observed).

MEDICAL MANAGEMENT

Administration of systemic methotrexate is commonly used in the medical management of ectopic pregnancies and pregnancies of unknown location. The use of methotrexate in the management of interstitial ectopic pregnancy was first described by Tanaka et al in 1982 to treat an unexpected interstitial ectopic pregnancy after a laparotomy was performed for salpingectomy of a suspected ectopic pregnancy ¹⁵.

Studies have investigated the efficacy of systemic methotrexate (administered intramuscularly) and local methotrexate injection (injected into the gestational sac or its surroundings).



● Interstitial and Cornual Ectopic Pregnancies – what are the options? cont.

Dr Samuel Vo and A/Prof Harry Merkur

Systemic methotrexate has been shown to be an effective and relatively safe option. The success rate of methotrexate management in interstitial ectopic pregnancies are reported in studies to be 74% to 100%¹⁶⁻¹⁸. Local methods of administration of methotrexate have been described in case reports and case series. Transvaginal ultrasound guided injection of methotrexate into the gestational sac have reported success rates of 91%¹⁸. With advances in hysteroscopic technology, newer and smaller hysteroscopes allow for a wider range of minimally invasive techniques, including use of operative hysteroscopy to inject methotrexate.

Smaller studies have found greater levels of success in management of interstitial ectopic pregnancies when serum β HCG levels were below 5000 IU/L, and when the gestational sac diameter was less than 19mm^{14,19}.

SURGICAL MANAGEMENT

Historically, the surgical management of an interstitial ectopic pregnancy has been either a hysterectomy or a cornual wedge resection via laparotomy⁶, but with developments in laparoscopy, there are a broader range of techniques that surgeons can use in managing interstitial ectopic pregnancies without the morbidity involved with a laparotomy.

Laparoscopic management fundamentally involves a cornuostomy or a cornual resection, with other secondary techniques used to assist in the control of haemostasis or to reassure the surgeon of a complete resection of the gestational tissue.

Cornuostomy typically involves 1) vasopressin injection into the uterine wall around the site of planned incision overlying the ectopic pregnancy, 2) an incision is made to remove or expose the ectopic pregnancy – either by a circumferential incision around the interstitial pregnancy, or a single linear incision over the interstitial pregnancy, 3) removal of products of conception from the implantation site manually or by hydrodissection and subsequent removal from the abdomen, 4) excision of suspicious appearing myometrial tissue, and 5) suturing and closure of the myometrium for haemostasis and to attempt to prevent potential future rupture.

A cornual wedge resection typically involves 1) vasopressin injection into the uterine wall around the site of planned incision overlying the ectopic pregnancy, 2) a wide circumferential incision approximately 2cm from the base of the interstitial ectopic pregnancy leaving behind serosa and normal myometrium for closure, 3) removal of the interstitial ectopic pregnancy and uterine cornua from the abdomen, and 4) suturing and closure of the myometrium for haemostasis and to fortify to prevent potential future rupture.

The decision for which technique is used has been largely guided by the size of the interstitial ectopic pregnancy, where cornuostomy is recommended to be appropriate for gestational sacs of less than 3.5cm, while cornual resections are recommended for gestational sacs greater than 4cm⁴.

– HAEMOSTATIC TECHNIQUES

A major consideration when performing cornuostomy or cornual resection is adequate haemostasis. Diluted vasopressin injected into the myometrial tissue at the site of initial uterine incision has been routinely used. Other surgical approaches used to prevent haemorrhage in cornuostomy and cornual resections have been described, including the use of an Endoloop™ around the site of the interstitial ectopic pregnancy to create a pedicle for ligation to maintain haemostasis²⁰. Another technique described an encircling suture or purse-string suture around the region of the unruptured interstitial pregnancy, and this reported similar estimated blood loss and operation time compared to routine use of vasopressin²¹, and has been demonstrated in case reports to be effective²³.

Conclusion

While the literature often uses the terms ‘cornual ectopic pregnancy’ and ‘interstitial ectopic pregnancy’ interchangeably, understanding the major differences between the two allows for correct identification of the ectopic pregnancy. Once the correct ectopic pregnancy is identified, patients can be properly counselled about treatment options available to them based on the evidence available. While surgical options are available for both cornual and interstitial ectopic pregnancies, expectant and medical management may be an option for stable patients with interstitial ectopic pregnancies. →

Interstitial and Cornual Ectopic Pregnancies – what are the options? cont.

Dr Samuel Vo and A/Prof Harry Merkur

REFERENCES

- 1 Malinowski A, Bates SK. Semantics and pitfalls in the diagnosis of cornual/interstitial pregnancy. *Fertil Steril.* 2006;86(6):. doi:10.1016/j.fertnstert.2006.03.073
- 2 Abdelazim IA, Kanshaim S, Zhurabekova G. Regarding "Technique for the Laparoscopic Management of a Cornual Ectopic Pregnancy". *J Minim Invasive Gynecol.* 2019;26(4):777-778. doi:10.1016/j.jmig.2018.12.011
- 3 Elson CJ, Salim R, Potdar N, Chetty M, Ross JA, Kirk EJ on behalf of the Royal College of Obstetricians and Gynaecologists. Diagnosis and management of ectopic pregnancy. *BJOG* 2016;.123:e15–e55.
- 4 Ng S, Hamonri S, Chua I, Chern B, Siow A. Laparoscopic management of 53 cases of cornual ectopic pregnancy. *Fertil Steril.* 2009;92(2):448-452. doi:10.1016/j.fertnstert.2008.08.072
- 5 Leggieri C, Guasina F, Casadio P, Arena A, Pilu G, Seracchioli R. Hysteroscopic Methotrexate Injection Under Ultrasonographic Guidance for Interstitial Pregnancy. *J Minim Invasive Gynecol.* 2016;23(7):1195-1199. doi:10.1016/j.jmig.2016.07.015
- 6 Faraj R, Steel M. Management of cornual (interstitial) pregnancy. *The Obstetrician & Gynaecologist* 2007;9:249–255.
- 7 Timor-Tritsch IE, Monteagudo A, Matera C, Veit CR. Sonographic evolution of cornual pregnancies treated without surgery. *Obstet Gynecol.* 1992;79(6):1044-1049.
- 8 Ackerman TE, Levi CS, Dashefsky SM, Holt SC, Lindsay DJ. Interstitial line: sonographic finding in interstitial (cornual) ectopic pregnancy. *Radiology.* 1993;189(1):83-87. doi:10.1148/radiology.189.1.8372223
- 9 Cutner A, Saridogan E, Hart R, Pandya P, Creighton S. Laparoscopic management of pregnancies occurring in non-communicating accessory uterine horns. *Eur J Obstet Gynecol Reprod Biol.* 2004;113(1):106-109. doi:10.1016/j.ejogrb.2003.09.020
- 10 Fedele L, Bianchi S, Agnoli B, Tozzi L, Vignali M. Urinary tract anomalies associated with unicornuate uterus. *J Urol.* 1996;155(3):847-848.
- 11 Sönmez M, Taskin S, Atabekoğlu C, Güngör M, Unlü C. Laparoscopic management of rudimentary uterine horn pregnancy: case report and literature review. *JLS.* 2006;10(3):396-399.
- 12 Poon LC, Emmanuel E, Ross JA, Johns J. How feasible is expectant management of interstitial ectopic pregnancy?. *Ultrasound Obstet Gynecol.* 2014;43(3):317-321. doi:10.1002/uog.12565
- 13 Cassik P, Ofili-Yebovi D, Yazbek J, Lee C, Elson J, Jurkovic D. Factors influencing the success of conservative treatment of interstitial pregnancy. *Ultrasound Obstet Gynecol.* 2005;26(3):279-282. doi:10.1002/uog.1961
- 14 Ben-David A, Meyer R, Mohr-Sasson A, Mashiach R. Nonsurgical Management of Interstitial Pregnancies: Feasibility and Predictors of Treatment Failure. *J Minim Invasive Gynecol.* 2020;27(3):625-632. doi:10.1016/j.jmig.2019.06.008
- 15 Tanaka T, Hayashi H, Kutsuzawa T, Fujimoto S, Ichinoe K. Treatment of interstitial ectopic pregnancy with methotrexate: report of a successful case. *Fertil Steril.* 1982;37(6):851-852. doi:10.1016/s0015-0282(16)46349-1
- 16 Parker B M, Gupta A K, Lymperopoulos A, et al. (August 10, 2020) Methotrexate for Cornual Ectopic Pregnancy. *Cureus* 12(8): e9642. DOI 10.7759/cureus.9642
- 17 Dagar M, Srivastava M, Ganguli I, Bhardwaj P, Sharma N, Chawla D. Interstitial and Cornual Ectopic Pregnancy: Conservative Surgical and Medical Management. *J Obstet Gynaecol India.* 2018;68(6):471-476. doi:10.1007/s13224-017-1078-0
- 18 Andrés MP, Campillos JM, Lapresta M, Lahoz I, Crespo R, Tobajas J. Management of ectopic pregnancies with poor prognosis through ultrasound guided intrasacral injection of methotrexate, series of 14 cases. *Arch Gynecol Obstet.* 2012;285(2):529-533. doi:10.1007/s00404-011-2044-1
- 19 Jermy K, Thomas J, Doo A, Bourne T. The conservative management of interstitial pregnancy. *BJOG.* 2004;111(11):1283-1288. doi:10.1111/j.1471-0528.2004.00442.x31.
- 20 DiSilvestro J, Dwomor L, Burrell D. Utilization of the Endoloop in Laparoscopic Removal of an Interstitial Ectopic Pregnancy. *Journal of Minimally Invasive Gynecology.* 2021 Nov 1;28(11):S157-8.
- 21 Moon HS, Choi YJ, Park YH, Kim SG. New simple endoscopic operations for interstitial pregnancies. *Am J Obstet Gynecol.* 2000;182(1 Pt 1):114-121. doi:10.1016/s0002-9378(00)70499-6
- 22 Edelman AB, Jensen JT, Lee DM, Nichols MD. Successful medical abortion of a pregnancy within a noncommunicating rudimentary uterine horn. *Am J Obstet Gynecol.* 2003;189(3):886-887. doi:10.1067/s0002-9378(03)00121-2
- 23 McGrattan M, Chan WV, Murji A. A Purse-String Approach to Laparoscopic Cornuostomy for Interstitial Ectopic Pregnancy. *Journal of Minimally Invasive Gynecology.* 2020 Nov 1;27(7):S74-5.

The first European gynaecological procedure with the new surgical robot Hugo™ RAS. A total hysterectomy and salpingo-oophorectomy in a woman affected by BRCA-1 mutation

G. MONTEROSSI¹, L. PEDONE ANCHORA¹, S. GUELI ALLETTI², A. FAGOTTI^{1,3}, F. FANFANI^{1,3}, G. SCAMBIA^{1,3}

¹UOC Ginecologia Oncologica, Dipartimento per la salute della Donna e del Bambino e della Salute Pubblica, Fondazione Policlinico Universitario A. Gemelli IRCCS, Rome, Italy; ²UOC Ginecologica e Ostetricia, Dipartimento Materno-Infantile, Ospedale Buccheri La Ferla Fatebenefratelli, Palermo, Italy; ³Università Cattolica del Sacro Cuore, Rome, Italy.

Correspondence at: Luigi Pedone Anchora, Dipartimento per la salute della Donna e del Bambino e della Salute Pubblica Fondazione Policlinico Universitario A. Gemelli IRCCS, Rome, Italy; E-mail: luigi.us@hotmail.it. Tel: +39 3497237807

Abstract

Background: The benefits of minimally invasive surgery are well known in gynaecology. Robotic-assisted surgery has gained widespread acceptance within the surgical community and seems to be the most rapidly developing sector of minimally invasive surgery.

Objectives: This video shows the salient steps of total hysterectomy with new robotic technology, Hugo™ RAS.

The objectives were to introduce and demonstrate the feasibility, efficacy, and safety of this new advanced device.

Material and Methods: A sixty-two years-old woman affected by BRCA-1 mutation underwent the first European gynaecological surgical procedure using the new surgical robot Hugo™ RAS in the Division of Gynecologic Oncology, Fondazione Policlinico Universitario A. Gemelli IRCCS, Rome, Italy.

Main Outcomes measures: Docking and operative times.

Results: The docking time was 6 minutes and the total operative time was 58 minutes. There were no system errors and faults in the robotic arms. The surgeon found no friction or rasping in the arms. The estimated blood loss was 30 mL. No intraoperative complications were recorded.

Conclusion: Gynaecological surgery with Hugo™ RAS seems feasible, safe and effective as shown by initial experiences in urological surgery. A larger case series would confirm the current experience and determine whether this technology could offer any additional benefit.

Key words: HUGO RAS, total hysterectomy, robotic surgery.

Learning objective

Hugo™ RAS is a new robotic technology for minimally invasive abdominal surgical treatment. It has been used in the gynaecological field to perform a total hysterectomy with bilateral salpingo- oophorectomy. This video shows the salient steps of the procedure that underline the feasibility, efficacy, and safety of this new surgical tool.

Introduction

The benefits of minimally invasive approach are well known in gynaecology (Kluivers et al., 2007; Aarts et al., 2015). The technological innovations of the robotic surgery

allowed extending minimally invasive surgery to even the most complex cases so that in recent years there has been a further increase in the rate of minimally invasive surgery (Gressel et al., 2020).

Robotic-assisted surgery has gained widespread acceptance within the surgical community and seems to be the most rapidly developing sector of minimally invasive surgery.

Although the Da Vinci® (Intuitive Surgical) represented the leading actor in defining the “rules” of robotic surgery,

technology continues to move forward and new competitors have been developed over the last few years (Haig et al., 2020; Fanfani et al., 2015; Fanfani et al., 2016a). Amongst these, the most recently introduced robotic system is the Hugo™ RAS Technology manufactured by Medtronic. It is composed of a system tower, an open console and four arm carts. Each robotic arm is independent, allowing the placement of the robotic arms from all directions in order to reduce risk of collision; moreover it has a high range of movements enabled by six different joints per arm. The surgeon performs procedures from an “open” surgical console composed of a 32-inch-wide screen HD-3D passive display, two arm-controllers with handgrip similar to the pistol grip and a footswitches panel to control the camera, energy sources, and the reserve arm.

Patients and methods

A sixty-two year-old woman affected by BRCA-1 mutation underwent the first European gynaecological surgical procedure by the new surgical robot Hugo™ RAS at the Division of Gynecologic Oncology, Fondazione Policlinico Universitario A. Gemelli IRCCS, Rome, Italy.

She was Caucasian, with a body mass index of 28. The patient gave a history of two vaginal deliveries without complications and an appendectomy during childhood. Preoperative evaluation by pelvic ultrasound showed a normal uterus and adnexae. The CA 125 level was <30 µg/mL.

After giving an informed consent, patient underwent prophylactic total extra-fascial hysterectomy with bilateral salpingo-oophorectomy. The total hysterectomy was performed step by step with uterine arteries ligation at the origin according as described previously (Gueli Alletti et al., 2019).

At the end of the procedure an intra-peritoneal drain was placed.

During the surgical procedure, specific time parameters were assessed:

- » docking time, defined as the time between the placement of all trocars and the actual start of the robotic part of the procedure at the complete positioning of all robotic arms and instruments.
- » operative time, defined as the interval from the start of the procedure to the suturing of the surgical incisions.

Postoperative pain evaluation during the immediate postoperative period was recorded at 2, 4, 12, and 24 h after

surgery, using a validated visual analogue pain scale (VAS) and scored from 0 to 10 (0 = no pain; 10 = agonising pain) (McCormack et al., 1988).

The duration of the hospital stay was calculated from the day of surgery (day 0) to discharge.

Results

Under general anaesthesia, the patient was positioned in the dorsal lithotomy position with both legs supported in Allen stirrups with a Trendelenburg tilt and arms along the body.

The patient received antibiotic prophylaxis consisting of cefazoline 2g administered intravenously 1 hour before surgery and antithrombotic prophylaxis consisting of enoxaparin 4000 IU subcutaneously once a day from the day after the surgery.

The adjustable robotic arms were a maximum of four and could be individually positioned in different arrangements in space, detached from each other. In our setting, we decided to use three robotic arms, one for the endoscope and the other two for three different instruments: bipolar fenestrated grasper on the left arm, monopolar curved scissors on the right arm and, during the vault closure, a large needle driver on the right arm after removal of curved scissors.

We used four ports to perform the surgical procedure; an umbilical port for the 11 mm optics (arm number 1) was first inserted, the second (arm number 2) and third (arm number 3) access points were made using 8 mm titanium trocars in the left and right iliac fossae, 11 cm of distance from the umbilical port. Fourth access point was a 5mm trocar in the Palmer's point, which was used by the table assistant for suction and irrigation, grasping, and sealing the uterine arteries at their origin with a vascular clip. (Figures 1 and 2) The first surgeon from the console controlled the movement of both instruments and the camera. The first assistant was situated at the patient's left side. The second assistant placed and moved the uterine manipulator.

The docking time was 6 minutes and the total operative time was 58 minutes. There were no system errors or faults in the robotic arms. The surgeon found no friction or rasping in the arms.

The estimated blood loss was 30 mL. No intraoperative complications were recorded.



Figure 1: External view of trocars placement.

Pelvic drain was removed the day after surgery. Pain VAS score decreased after surgery, with 2 - 4 -12 hours values of 4 - 4 -2, respectively. At 24 h hours the value of pain was 2. The patient was discharged on the second postoperative day.

Discussion

Robotic surgery is an area in which technological development is contributing significantly to the improved patient care. In this video article we present the first clinical experience with this new technology in

gynaecological surgery and demonstrate encouraging outcome. One of the main concerns when using a new advanced device is the occurrence of errors or system crashes that could force restarting the system or even abandoning the robotic approach with laparoscopic or laparotomic conversion. This could have a negative impact on the patient with increased risk of complications and prolonged the operative time.

During the present operation, the Hugo™ RAS system showed fluidity and promptness of response to the commands of the first surgeon, both in terms of arm and instrument movements and activation of the energy sources so that good results in operative time and blood loss were achieved.

Having independent arm carts, as it is in other robotic systems (Haig et al., 2020; Fanfani et al., 2016b; Rossitto et al., 2016; Rossitto et al., 2017), has both advantages and disadvantages. Trocar placement could be modified according to the scheduled procedure without limitations, since it is not necessary that all the arms must be coming from the same direction. For the present case we decided to place lateral trocars similar to standard laparoscopy, a little lower than the umbilical trocar. This ensured a better aesthetic result and allowed a more ergonomic placement of the trocars in case of a possible laparoscopic conversion.

Moreover, independent arms allowed more movement and fewer clashes. As a matter of fact, no intra- or extra-abdominal collisions occurred during the procedure. On the other hand, having four independent arms means a larger footprint around the patient and storage space would be required compared to other systems.



Figure 2: The robotic arms after docking.

However in the present surgery the first assistant and the nurse maintained a comfortable position during the procedure without limitation of their movements. With the wrist-like articulation of the instruments, along with the rotation multiplier technology, it was easy to reach the less accessible anatomical points and to have an optimal angle for effective coagulation. Moreover, suturing was facilitated by amplifying the rotation of the surgeon's wrist. The first surgeon maintained an ergonomic position during the procedure due to the open console. Moreover, avoiding the need to look into a "closed" display allowed an easy communication between the first surgeon and the team along with a direct view of the surgical field. In the present case the operative time was shorter than those reported for hysterectomy performed by Da Vinci® system in clinical trials and superimposable to those reported for standard laparoscopy (Albright et al., 2016). Blood loss was also similar to the mean reported in cases of hysterectomies performed by Da Vinci® system or standard laparoscopy.

Conclusions

Although it is too early to reach definitive conclusions, gynaecological surgery with Hugo™ RAS seems feasible, safe and effective in a similar way to the initial experience in urological surgery (Ragavan et al., 2022). A larger case series would confirm the experience and allow determining whether this technology could offer additional benefit. A clinical prospective study is already underway in our centre in order to provide further evidence.

REFERENCES

- Aarts JW, Nieboer TE, Johnson N et al. Surgical approach to hysterectomy for benign gynaecological disease. *Cochrane Database Syst Rev.* 2015;2015:CD003677.
- Albright BB, Witte T, Tofte AN et al. Robotic versus laparoscopic hysterectomy for benign disease: a systematic review and meta-analysis of randomized trials. *J Minim Invasive Gynecol.* 2016;23:18-27.
- Fanfani F, Restaino S, Gueli Alletti S et al. TELELAP ALF-X Robotic-assisted Laparoscopic Hysterectomy: Feasibility and Perioperative Outcomes. *J Minim Invasive Gynecol.* 2015;22:1011-7.

Fanfani F, Monterossi G, Fagotti A et al. The new robotic TELELAP ALF-X in gynecological surgery: single-center experience. *Surg Endosc.* 2016a;30:215-21.

Fanfani F, Restaino S, Rossitto C et al. Total Laparoscopic (S-LPS) versus TELELAP ALF-X robotic-assisted hysterectomy: a case-control study. *J Minim Invasive Gynecol.* 2016b;23:933-8.

Gressel GM, Potts JR 3rd, Cha S et al. Hysterectomy route and numbers reported by graduating residents in obstetrics and gynecology training programs. *Obstet Gynecol.* 2020;135:268-73.

Gueli Alletti S, Restaino S, Finelli A et al. Step by step total laparoscopic hysterectomy with uterine arteries ligation at the origin. *J Minim Invasive Gynecol.* 2020;27:22-3.

Haig F, Medeiros ACB, Chitty K et al. Usability assessment of Versius, a new robot-assisted surgical device for use in minimal access surgery. *BMJ Surg Interv Health Technol.* 2020;2:e000028.

Kluivers KB, Hendriks JC, Mol BW et al. Quality of life and surgical outcome after total laparoscopic hysterectomy versus total abdominal hysterectomy for benign disease: a randomized, controlled trial. *J Minim Invasive Gynecol.* 2007;14:145-52.

McCormack HM, Horne DJ, Sheather S. Clinical applications of visual analogue scales: a critical review. *Psychol Med.* 1988;18:1007-19.

Ragavan N, Bharathkumar S, Chirravur P et al. Evaluation of Hugo RAS system in major urologic surgery: our initial experience. *J Endourol.* 2022, online ahead of print.

Rossitto C, Gueli Alletti S, Fanfani F et al. Learning a new robotic surgical device: Telelap Alf X in gynaecological surgery. *Int J Med Robot.* 2016;12:490-5.

Rossitto C, Gueli Alletti S, Perrone E et al. Treatment of gynecological disease in obese patient: which role for telelap ALF-X platform? *J Robot Surg.* 2017;11:95-6.

Video scan (read QR)

<https://vimeo.com/688801633/a39465e360>



doi.org/10.52054/FVVO.14.1.014

● Save the date

Please visit www.ages.com.au for the latest information.



AGES Annual Scientific Meeting 2023
MARCH 9-11 2023
Hyatt Regency, Sydney
Theme - Evolution Not Revolution!



JUNE 2023



AGES Focus Meeting 2023
JULY 6-7 2023
Hyatt Regency Bangkok Sukhumvit, Thailand
Theme - The Modern Muse



AGES Laparoscopic Anatomy Pelvic Dissection/
Demonstration Workshops
**MULTIPLE DATES THROUGHOUT
AUGUST, OCTOBER AND
NOVEMBER 2023**
Medical Engineering and Research Facility,
Brisbane



AGES Pelvic Floor Symposium 2023
OCTOBER 19-20 2023
The W Brisbane, Brisbane

● AGES Membership 2023

It is not too late to renew your membership for 2023 and register for the upcoming AGES Annual Scientific Meeting at the reduced members rate.

Membership of AGES includes the following:

- » Complimentary access to member only content such as webinars
- » Savings of up to 15% on member registration fees for AGES meetings.
- » Exclusive access to the “AGES Video Library – Members only”.
- » Eligibility to register for the AGES Laparoscopic Anatomy Pelvic Dissection & Demonstration Workshops (LAP-D).
- » Eligibility to apply for AGES Research Grants.
- » Discounted SurgicalPerformance subscription.
- » Complimentary subscription to the Journal of Minimally Invasive Gynaecology (formerly AAGL Journal).
- » Option to subscribe to the International Urogynaecology Journal instead of JMIG for an additional fee.
- » AGES electronic newsletter, eScope, published three times annually.
- » Eligibility to register for the “Who do you want to be when you grow up” Seminars.
- » Member access to AGES website and resources.
- » Downloadable “AGES Member Icon” available for use in signature blocks and websites.
- » Listing on the Membership Directory of the AGES website.
- » Eligibility to apply for a position in the AGES Training Program in Gynaecological Endoscopy

To renew your membership online or to update your details, please use the following link: [AGES MEMBERSHIP 2022](#)
For full membership information, please visit the [AGES website](#)

Dates for Laparoscopic Workshops

ADVANCED LAPAROSCOPIC GYNAECOLOGICAL WORKSHOP ST JOHN OF GOD HOSPITAL SUBIACO

COURSE DIRECTOR
DR STUART SALFINGER

A two day clinical immersion aimed at surgeons performing laparoscopic gynaecological surgery who wish to extend their skill set and knowledge of advanced minimally invasive techniques. Candidates will work with two certified Gynaecological Oncologists over the two days running in two theatres. The course aims to provide maximum operation experience to participants. They will have the opportunity to scrub in and be 1st and 2nd assist. The case load is 85% laparoscopic predominantly with exposure in total laparoscopic hysterectomy.

2023 Course Dates: on application.

Details

www.covidien.com/pace/clinical-education/event/250875

FLINDERS PRIVATE ENDOGYNAECOLOGY MASTERING LAPAROSCOPIC SUTURING XXII FLINDERS PRIVATE HOSPITAL ADELAIDE

2023 Course Dates: Dates on application

Course Directors: Assoc. Prof. Robert O'Shea
Assoc. Prof. Elvis Seman

For information contact:

Robert O'Shea P: (08) 8326 0222 F: (08) 8326 0622
Email: rtooshea@adam.com.au

SWEC ADVANCED GYNAECOLOGIC LAPAROSCOPIC COURSES FOR 2023 AT THE SYDNEY WOMENS ENDOSURGERY CENTRE (SWEC) AT ST GEORGE HOSPITAL SYDNEY. COURSE DIRECTOR: ASSOC PROF GREG CARIO

We invite you to participate in our advanced gynaecological laparoscopy course which has been running for the last 20 years. This 5 day course is aimed at consultants and registrars keen to develop laparoscopic skills, refresh their pelvic anatomy, and broaden their repertoire of laparoscopic surgery. It is also useful for those looking for an introduction to Robotic surgery. You will have exposure during live surgery to 5 different advanced laparoscopic surgeons and see their different styles and approaches for TLH, fibroids, endometriosis, pelvic floor reconstruction and incontinence surgery.

Comprehensive Course Curriculum:

- » Laparoscopic pelvic anatomy instruction.
- » Dry lab training concentrating on curved needle suturing.
- » Robotic hysterectomy workshop.
- » Endometriosis workshop.
- » Live operating sessions running over 4 days with the opportunity to assist following pre-workshop accreditation.
- » Live animal workshop.
- » 43 CPD points (practice improvement points may also be claimed).
- » Small group participation of 8 – 10 registrants per course.

2023: March 20–24, June 5–9, October 16–20

Register on-line at www.swec.com.au
or contact our course administrator
at: sweconline@gmail.com or
Assoc Prof Greg Cario, SWEC Director
doc@drgregorymcario.com.au



MONASH MEDICAL CENTRE MONASH ENDOSURGICAL PRECEPTORSHIP

PROGRAM DIRECTOR DR. JIM TSALTAS

The Monash Endoscopy Unit is offering a preceptorship in the following areas of advanced laparoscopic surgery:

- » laparoscopic hysterectomy
- » laparoscopic management of endometriosis and general gynaecological endoscopy
- » laparoscopic oncological procedures
- » laparoscopic colposuspension
- » laparoscopic pelvic floor repair

2023 Course Dates: Dates on application

All enquiries should be directed to: Dr. Weng CHAN,
Gynae Endosurgery Consultant, 40 Lemana Crescent, Mt. Waverley, VIC 3149
P: + 61 3 9886 6248 F: + 61 3 9886 4468 Email: kkcha5@hotmail.com

Each preceptorship is limited to only two surgeons for each two day preceptorship. The course aims to provide maximum operation experience to participants. The Monash preceptorship is primarily designed for FRACOG specialists. However, theatre nurses as well as senior registrars and registrars are welcome.

This has been approved by RANZCOG for CPD points. 18 CPD points, 1 meeting point and 15 PR & CRM points are available.

● Dates for Laparoscopic Workshops cont



LAPAROSCOPIC SURGERY FOR GENERAL GYNAECOLOGISTS SYDNEY LAPAROSCOPIC WORKSHOPS 2023

WORKSHOP CONVENORS:

A/PROF G. CONDOUS (Nepean Hospital),
DR T. CHANG (Campbelltown Hospital) &
DR N. CAMPBELL (RPAH)

Our intensive 2 day laparoscopic course (limited to 8 places) is aimed at helping the generalist and registrars up skilling and becoming confident at performing common, day to day laparoscopic procedures. The course is intended for those with an interest and has a basic skill base for laparoscopy including suitable for Trainees and well as Fellows.

LASGEG highlights:

» DAY 1

- > Live operating: endometriosis/cystectomy/oophorectomy/hysterectomy/ureterolysis
- > Theory of laparoscopy: instrumentation/setup/energy/entry techniques/anatomy/operative techniques/complications
- > Dry lab

» DAY 2

- > Full day live pig operating
- > 2 participants max per sheep
- > One to one hands on step by step guidance on how to perform laparoscopic procedures

2023 Course Dates:

to be advised

Course fees:

fellows \$2000, Registrar \$1350 (limited places)

For further information contact:

Nicole Stamatopoulos: nic96@hotmail.com

Website: www.lasgeg.com

ADVANCED LAPAROSCOPIC PELVIC SURGERY TRAINING PROGRAM

PROGRAM DIRECTOR ASSOC PROF ALAN LAM

You are invited to participate in an integrated training program in Advanced Laparoscopic Pelvic Surgery. An internationally recognized faculty aims to give you the skills to practice safe endosurgery and increase the range of laparoscopic procedures you can perform.

2023 Course Dates:

Dates on Application

CARE Course Features

- » Personalised tuition
- » A maximum 8 participants per course
- » Comprehensive tutorials including anatomy, energy sources, complication management/prevention
- » Two skills labs to help refine intra and extra corporeal suturing
- » Two live animal lab sessions
- » Eight theatre sessions during which you will 'scrub in'
- » Credited by RANZCOG with CPD and PR&CRM points

For further information contact:

CARE Course Coordinator, AMA House Level 4
Suite 408, 69 Christie Street, St Leonards NSW 2065
P: (fax) + 61 2 9966 9121 F: + 61 2 9966 9126
Email: care@sydneycare.com.au
Web: www.sydneycare.com.au for registration forms



Volume 82 coming out
in February 2023

Contact Rachel Green (secretariat@ages.com.au)
with your contribution

Deadline **20th January 2023**

● WEC Cycle 2023

In association with the The British Society for Gynaecological Endoscopy (BSGE), Endometriosis UK, Endometriosis New Zealand and Endometriosis Australia, we are organising a fund-raising cycle ride from RCOG London to Edinburgh, preceding the World Endometriosis Conference (WEC). We invite clinicians and industry staff to join us in this exciting cycling challenge. If you are attending WEC 2023, why not reduce your carbon footprint and cycle up to the conference? Don't forget to bring your road bike or hire a bike locally! The ride will cover 724 km over four days, covering between 160 and 197 km a day. We will depart on Saturday 29th April and arrive in Edinburgh on Tuesday 2nd May 2023.

We will cycle as a group up to Edinburgh, arriving in time for the start of the pre-congress meeting. Australian and New Zealand based cyclists will raise research funds for either Endo NZ or Endo Aus. All expenses will be covered personally by the cyclists. The ride will challenge cyclists to ride through England and Scotland up to the conference to raise awareness of Endometriosis. It won't be an easy ride and riders will be expected to work as a team to help reach the destination. As we are cycling in the UK, we definitely cannot guarantee good weather!

Riders will no doubt rise to the challenge that awaits us. By May 2023, all riders should be capable of cycling the targeted daily distances and be comfortable riding in a group. The ride will be fully supported, with vehicles carrying luggage between stop-off points. Breaks will be scheduled approximately every two hours, with fluids and fuel provided. The trip also includes accommodation enroute in a twin share room.

THE PROVISIONAL PLANNED ROUTE IS:

Day 1: Royal College of Obstetricians & Gynaecologist (RCOG)/Endometriosis UK, London – Birmingham 193 km

Day 2: Birmingham – Preston via Manchester 197 km

Day 3: Preston – Carlisle via Lake District – 164 km

Day 4: Carlisle – Edinburgh Conference Centre – 160 km



Please contact Michael Wynn-Williams (michael@drmww.co.nz) if you are interested in completing this amazing fund raising opportunity for Endometriosis Research.

The deadline for registration is 31st December 2022.