Surgical Tutorial 2:
Multidisciplinary Approach to Endometriosis
(Gynecology, Colorectal, Urology)

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AAGL
Advancing Minimally Invasive Gynecology Worldwide
Professional Education Information

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A multidisciplinary approach in the treatment of deep endometriosis is key for optimal patient outcomes. This tutorial will provide insight on how to build and bring together the optimal group of specialists for pre-operative planning, surgical treatment and long-term care. The role of each specialty will be discussed as well. Discourse regarding what defines the ultimate pelvic surgeon will ensue and the roles of the urologist and the colorectal surgeon will also be presented. In the end, the management of the complications with a multidisciplinary approach will be discussed.

**Learning Objectives:** At the conclusion of this course, the participant will be able to: 1) Describe the importance of a multidisciplinary team in the pre-operative and surgical management of the patient with deep endometriosis.

**Course Outline**

12:10 Welcome, Introductions and Course Overview
M.S. Abrao

12:15 Building a Multidisciplinary Team: From Diagnosis to Treatment
M.S. Abrao

12:25 The Concept of a “Pelvic Surgeon”: What Are the Prerequisites?
B. Pickron

12:35 When Should the Urologist Participate in the Endometriosis Surgery?
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O.P. Roy

12:45 How to Manage the Complications With a Multidisciplinary Team
E. Zupi

12:55 Questions & Answers
All Faculty

1:10 Adjourn
PLANNER DISCLOSURE
The following members of AAGL have been involved in the educational planning of this workshop (listed in alphabetical order by last name).
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Consultant: Olympus
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Contracted Research: Gynecare
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Stock Ownership: Titan Medical
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FACULTY DISCLOSURE
The following have agreed to provide verbal disclosure of their relationships prior to their presentations. They have also agreed to support their presentations and clinical recommendations with the “best available evidence” from medical literature (in alphabetical order by last name).
Mauricio S. Abrao*
Bartley Pickron*
Ornob P. Roy
Speakers Bureau: Retrophin
Errico Zupi*
Content Reviewer has no relationships.

Asterisk (*) denotes no financial relationships to disclose.
Endometriosis: Building a Multidisciplinary Team
From diagnosis to Treatment

Surgical Tutorial, AAGL, 2016

Mauricio S Abrao
www.drmauricioabrao.com

Learning Objectives

1) Explain endometriosis related to pain and infertility;
2) Define the best multidisciplinary team to treat endometriosis;
3) Discuss the role of each speciality for the treatment of endometriosis.

Disclosure

- I have no financial relationships to disclose

32 yo
Severe dysmenorrhea (VAS 10)
Deep dyspareunia
Acidic pelvic pain
Infertility

Endometriosis: 1230 cases
Endometriosis: Building a Multidisciplinary Team

- Gynecologist
- Radiologist
- Colorectal Surgeon
- Urologist
- Pain Specialists, psychologist, physiotherapist
- REI

Symptom | Peritoneal | Ovarian | Deep | p
--- | --- | --- | --- | ---
Severe Dysmenorrhea | 22(51.8%) | 126(48.5%) | 229(62.9%) | 0.005
Chronic pain | 96(50.3%) | 143(54.8%) | 233(63.3%) | 0.006
Infertility | 56(28.7%) | 66(25.2%) | 124(34.1%) | 0.03
Cyclic Dyschezia | 21(11.4%) | 33(13%) | 120(33.5%) | <0.001
Cyclic Dysuria | 27(14.1%) | 34(13%) | 56(15.3%) | 0.71
Dyspareunia | 97(51.6%) | 138(52.9%) | 227(63.4%) | 0.007

Gynecologist: Team Leader
Pre Surgical Work up

Clinical Exam + Cat128 TVUS (Bowel Preparation)

No disease or Early stages

Normal

Doubt

Ovary

UTI

MRI

RV Septum / USL RECTOSIGMOID

TRANSRECTAL US

Treatmen t

Transvaginal US x MRI for Deep Endometriosis

Transvaginal US x MRI for Deep Endometriosis

<table>
<thead>
<tr>
<th>Local Method</th>
<th>Sensitivity</th>
<th>Specificity</th>
</tr>
</thead>
<tbody>
<tr>
<td>TVUS</td>
<td>98.1%</td>
<td>100%</td>
</tr>
<tr>
<td>Rectum Endo</td>
<td>83.3%</td>
<td>97.8%</td>
</tr>
<tr>
<td>Clinical Exam</td>
<td>72.3%</td>
<td>54%</td>
</tr>
<tr>
<td>TVUS</td>
<td>95.1%</td>
<td>98.4%</td>
</tr>
<tr>
<td>Retrocervical Endo</td>
<td>76%</td>
<td>68%</td>
</tr>
<tr>
<td>Clinical Exam</td>
<td>68.3%</td>
<td>46%</td>
</tr>
</tbody>
</table>


TVUS for Staging Endometriosis

<table>
<thead>
<tr>
<th>TVUS (TVUS)</th>
<th>Sensitivity</th>
<th>Specificity</th>
</tr>
</thead>
<tbody>
<tr>
<td>92%</td>
<td>71%</td>
<td>78%</td>
</tr>
<tr>
<td>97%</td>
<td>100%</td>
<td>92%</td>
</tr>
<tr>
<td>31%</td>
<td>10%</td>
<td>9%</td>
</tr>
</tbody>
</table>

The future: US Navigation / 4D reconstruction

The future: Image fusion

Endometriosis: Building a Multidisciplinary Team

- Gynecologist
- Radiologist
- Colorectal Surgeon
- Urologist
- Pain Specialist
- REI
- Psychologist, Nutritionist
### Post Operative Complications

| Authors          | N | Cure to Laparoscopy Leakage Anastomosis Dehiscence Abscess Urinary retention Others |
|------------------|---|-----------------------------------------------|---------------------------------|-----------------|-----------------|-----------------|-----------------|
| Sharpe, DR., 1992, USA | 30 | 4 (13.3%) | 1 (3.3%) | 3 (10%) | 3 (10%) | 4 (13.3%) | 4 (13.3%) |
| Nezhat, F., 1992, USA | 16 | 1 (6.2%) | 1 (6.2%) | 1 (6.2%) | 4 (25%) | 4 (25%) | 6 (37.5%) |
| Jerby, BL., 1999, USA | 3 | 1 (100%) | 1 (100%) | 3 (100%) | 1 (100%) | 3 (100%) | 1 (100%) |
| Provenzi, M., 2000, Germany | 28 | 8 (28.6%) | 1 (3.6%) | 1 (3.6%) | 1 (3.6%) | 1 (3.6%) | 8 (28.6%) |
| Charito, H., 2002, USA | 117 | 4 (3.4%) | 2 (1.7%) | 1 (0.9%) | 1 (0.9%) | 1 (0.9%) | 3 (2.5%) |
| Sharpe, HJ., 2003, USA | 140 | 4 (2.8%) | 2 (1.4%) | 4 (2.8%) | 3 (2.1%) | 4 (2.8%) | 6 (4.3%) |
| Ernest, J., 2003, Germany | 36 | 3 (8.3%) | 3 (8.3%) | 1 (2.8%) | 3 (8.3%) | 1 (2.8%) | 3 (8.3%) |
| Conaway, K, 2003, Italy | 25 | 3 (12%) | 2 (8%) | 1 (4%) | 1 (4%) | 1 (4%) | 1 (4%) |
| Ribeiro, PA., 2006, Brazil | 51 | 4 (7.8%) | 2 (3.9%) | 1 (2.5%) | 1 (2.5%) | 1 (2.5%) | 1 (2.5%) |
| Ribeiro, MA., 2007, France | 35 | 1 (2.8%) | 1 (2.8%) | 1 (2.8%) | 1 (2.8%) | 1 (2.8%) | 1 (2.8%) |
| Alain, JN., 2009, Brazil | 71 | 7 (10%) | 6 (8.4%) | 5 (7%) | 3 (4.2%) | 2 (2.8%) | 7 (10%) |
| Ribeiro, MA., 2011, Brazil | 105 | 2 (1.9%) | 3 (2.9%) | 2 (1.9%) | 1 (1%) | 5 (4.7%) | 7 (6.6%) |

### Bowel Resection

- Cecum and Appendix

### Endometriosis: Building a Multidisciplinary Team

- Gynecologist
- Radiologist
- Colorectal Surgeon
- Urologist
- Pain Specialists
- REI
- Psychologist, Nutritionist

**Ureteral endometriosis** is associated with deep retrocervical endometriosis and not with bladder disease

Multivariate analysis of patients with ureteral endometriosis compared to patients without ureteral endometriosis

<table>
<thead>
<tr>
<th>Variable</th>
<th>Parameter estimated</th>
<th>Standard Error</th>
<th>Odds ratio</th>
<th>95%CI</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Retrocervical endometriosis</td>
<td>1.97</td>
<td>0.81</td>
<td>7.19</td>
<td>1.47 - 35.27</td>
<td>.0150</td>
</tr>
<tr>
<td>Endometriosis of rectum-sigmoid</td>
<td>3.10</td>
<td>1.08</td>
<td>22.29</td>
<td>2.69 - 181.74</td>
<td>.0040</td>
</tr>
</tbody>
</table>
Surgical Tutorial 6 - Extensive endometriosis

Ureteral Endometriosis: Psoas Hitch

Endometriosis: Building a Multidisciplinary Team
- Gynecologist
- Radiologist
- Colorectal Surgeon
- Urologist
- Pain Specialists, psychologist, physiotherapist
- REI

Guidelines on Chronic Pelvic Pain

Tratamento Baseado em Evidências

Table 2: Grade of recommendation (IRM)

<table>
<thead>
<tr>
<th>Grade</th>
<th>Notes of recommendations</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>Based on clinical studies of good quality and consistency addressing the specific recommendations and includes a practical recommendation tool</td>
</tr>
<tr>
<td>B</td>
<td>Based on well-conducted clinical studies, but without randomized clinical trials</td>
</tr>
<tr>
<td>C</td>
<td>invite sharing the absence of data to achieve clinical evaluation at good quality</td>
</tr>
</tbody>
</table>

Physiotherapist

Assessment
- Palpation of the muscles
- Testing of pelvic floor function
- Anal incontinence (AN)
- Exit from myofascial trigger points
- History of all the involved organs
- Standardized questionnaires

Treatment
- Grade A recommended
  - Use the information obtained for the identification of dysfunctions
  - Biofeedback in combination with muscle exercises
  - Treat myofascial trigger points using pressure or needling

Psychologist

Assessment
- Psychological profile
- Grade A recommended
- Investigate socio-economic position and enable...

Treatments
- Grade A recommended
  - Interact according to the contact of care
  - Psychological interactions as adjacent to other modules

Physiotherapist en SDPC: Biofeedback 87%, Electrotherapie 45% e Massagem 22%
Endometriosis: Building a Multidisciplinary Team

- Gynecologist
- Radiologist
- Colorectal Surgeon
- Urologist
- Pain Specialists
- REI
- Psychologist, Nutritionist

Endometriomas reduce the ovarian response without surgery?

Prospective
46 patients with Unilateral Endometrioma >3cm
no surgery
IVF / HOC

<table>
<thead>
<tr>
<th>Number of follicles retrieved</th>
<th>Normal Ovary</th>
<th>Ovary with endometrioma without surgery</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of oocytes retrieved</td>
<td>4.5 (2.1)</td>
<td>3.2 (1.7)</td>
<td>0.03</td>
</tr>
</tbody>
</table>

Somigliana, et al., The presence of ovarian endometriomas is associated with a reduced responsiveness to gonadotropins. Fertil Steril. 2006

Deep Endometriosis and Infertility

<table>
<thead>
<tr>
<th>ART outcome</th>
<th>ART only</th>
<th>Surgery before ART</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total FSH dose (IU)</td>
<td>2380 ± 911</td>
<td>2542 ± 1012</td>
<td>0.01</td>
</tr>
<tr>
<td>N oocyte retrieved</td>
<td>16.8 ± 5</td>
<td>9.9 ± 5</td>
<td>0.04</td>
</tr>
<tr>
<td>Fertilization rate (%)</td>
<td>77.9</td>
<td>78.9</td>
<td>NS</td>
</tr>
<tr>
<td>N Top quality oocytes</td>
<td>8.52 ± 1</td>
<td>8.57 ± 1</td>
<td>NS</td>
</tr>
<tr>
<td>N embryos transferred</td>
<td>3.4 ± 1</td>
<td>3.8 ± 1</td>
<td>NS</td>
</tr>
<tr>
<td>Implantation rate (%)</td>
<td>22 ± 1</td>
<td>32</td>
<td>0.03</td>
</tr>
<tr>
<td>Pregnancy rate (%)</td>
<td>24 ± 4</td>
<td>41</td>
<td>0.004</td>
</tr>
</tbody>
</table>

Bianchi, JMIG(2009)

Endometriosis and Infertile Woman

Pelvic pain or infertility

- Cryopreservation
- Surgery
- Ovarian Induction - IUI
- IVF
- Low AMH < 3.5
- Normal AMH < 10µm
- Normal AMH > 10µm
- Ovarian Induction - IUI
Endometriosis: Multidisciplinary Team / from Diagnosis to Treatment

Gynecologist : Team Leader
Radiologist
Colorectal Surgeon
Urologist
Psychologist
Physiotherapist
Pelvic Pain Specialist
REI

Endometriosis: New Markers
USP Peritoneal Fluid Cytokine Analysis
M. Beste 4/6/13

MIT Study Design
n = 20 controls; n = 41 endometriosis; n = 16 progestin therapy (not shown)

USP Study Design
n = 8 controls; n = 48 endometriosis

50-plex cytokines

MIT - Fold Increase
AFS I/II vs. Controls;
AFS III/IV vs. Controls

USP - Fold Increase
AFS III/IV vs. Controls;
AFS I/II vs. Controls

Beste, Griffith, Abrao, 2016

References

Question
Which of the following specialists are the most important in a multidisciplinary team to treat endometriosis?

a) Gynecologist
b) Radiologist
c) Colorectal surgeon
d) Pain specialist
e) All of them

Correct alternative: E
The Concept of a “Pelvic Surgeon”: What are the Prerequisites?

Bartley Pickron, MD
Associate Professor
Colon and Rectal Surgery
Department of Surgery
University of Utah

Objectives

- Describe the roles of surgical specialists in the multi-disciplinary treatment of endometriosis
- Discuss the role of operative experience in the surgical treatment of endometriosis

Disclosures

- I have no financial relationships to disclose

The Pelvic Surgeon

Background/ Training

- Gynecology
- Colon and Rectal Surgery
- Urology

Understanding the Disease

- Recognizing different types of endometriosis
- Understand excision techniques and indications
- Understand symptoms related to deep infiltrative endometriosis
- Ability to work within a multidisciplinary team

Understanding Anatomy

- Urologist: Ureters, bladder, anterior cul-de-sac
- Gynecologist: Uterus, tubes, ovaries, supporting ligaments
- Colorectal Surgeon: Rectum, mesorectum, posterior cul-de-sac
Understanding Anatomy

Role of Each Surgeon

- **Gynecologist (Primary)**
  - Initial evaluation and management
  - Role of medical vs surgical therapy
  - Long term follow up

- **Colorectal Surgeon**
  - Evaluate intestinal involvement
  - Determine appropriate procedure for each patient
  - Management of intestinal function (short and long term)

- **Urologist**
  - Ureteral stent placement
  - Determine appropriate procedure for each patient
  - Management of complications

Surgeon Experience

This procedure should only be performed by experienced gynecologists because of the high risk of injury to adjacent organs.

...bowel endometriosis should be diagnosed and managed in a specialized unit.

The primary surgical access route was laparoscopic, performed by a gynecologist and a surgeon with sufficient experience in laparoscopic colorectal surgery.

...provided that the surgeon is highly skilled in laparoscopy, laparoscopic resection of deep pelvic endometriosis with rectosigmoid involvement is feasible and effective in nearly all patients.

Good judgment comes from experience and experience comes from bad judgment.

What do we mean by Experience?

- Training: Generalists vs Subspecialists
- Volume: How many cases/year?
- Open vs Laparoscopic vs Robotic
- Operative pathology
- Outcomes
Surgeon Experience

- Retrospective study of 164 women undergoing colorectal resection for the treatment of deep endometriosis from 2004 to 2012.
- Outcomes
  - Complications
  - Re-operation
  - Fertility

Complications per 3 year period

Complication rate decreases with increasing surgical experience

Outcomes

- Complications: 12%
- Re-operation: 7%
- Fertility: 47%

Statistically significant risk factors for complication
- Nodule size >4 cm
- Operation during 2004-06

Conclusion

"With increasing experience the number of complications was reduced and therefore, the practice of centralizing these operations seems to be well justified."
Surgeon Experience

- Retrospective review of 149 IVF-ICSI cycles who previously underwent laparoscopic treatment of ovarian endometrioma.
- Compared experienced (attending surgeon) vs inexperienced (fellow or chief resident)

<table>
<thead>
<tr>
<th>Time from surgery to IVF</th>
<th>Inexperienced surgeon</th>
<th>Experienced surgeon</th>
<th>P value</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>45.4 months</td>
<td>29.8 months</td>
<td>0.005</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>rAFS score</th>
<th>Inexperienced surgeon</th>
<th>Experienced surgeon</th>
<th>P value</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>35.7</td>
<td>49.1</td>
<td>0.003</td>
</tr>
</tbody>
</table>

Surgeon Experience

- Statistically significant baseline characteristics

<table>
<thead>
<tr>
<th>Antral follicle count</th>
<th>Inexperienced surgeon</th>
<th>Experienced surgeon</th>
<th>P value</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>7.5</td>
<td>9.6</td>
<td>0.015</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Live born rate per cycle</th>
<th>Inexperienced surgeon</th>
<th>Experienced surgeon</th>
<th>P value</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>9.3%</td>
<td>32.9%</td>
<td>&lt;0.001</td>
</tr>
</tbody>
</table>

Conclusion

“The skill and experience of laparoscopists play an important role in determining the final IVF-ICSI outcome for infertile patients operated on for ovarian endometrioma.”

Conclusions

- Successful treatment of advanced deep infiltrative endometriosis requires a multi-disciplinary team of surgeons familiar with operating in the confines of the pelvic.
- Studies state that surgeon experience is an important factor in the treatment of endometriosis but recommendations on how to quantify that experience are lacking.

References

When Should the Urologist Participate in the Endometriosis Surgery? For Bladder Disease, Ureteral Disease or Only for Reimplantation?

NOVEMBER 16TH, 2016
ORNAB. ROY, MD
ASSISTANT PROFESSOR OF UROLOGY
CAROLINAS MEDICAL CENTER
CAROLINAS HEALTHCARE SYSTEM
CHARLOTTE, NC

Disclosures
- Speakers Bureau: Retrophin

Objectives
- Identify preoperative predictors
- Discuss preoperative actions, intraoperative equipment needs, intraoperative techniques, and post-operative evaluation

Preoperative Predictors
- Hydronephrosis
- Flank Pain
- Urinary symptoms
- Previous urologic surgery

Preoperative Actions
- Ureteral catheters – to identify, NOT prevent ureteral injury
- Urologist involved in preoperative planning
- Preoperative imaging
  - MR >100% sensitive for internal ureteral endometriosis
  - Detection of hydronephrosis (GU focused ultrasound)
  - Management of poorly functioning kidney
- Ureteroscopy and biopsy
  - Biopsy NOT sensitive to mucosal invasion
  - Useful to rule out urologic malignancy and define length of obstruction
  - Patient counseling for ureteral stents/reimplantation
  - Available on standby or as co-surgeon

Intraoperative
- Equipment needs
  - Cystoscope and urethral access
  - Guidewires and catheters
  - DJ ureteral stents
  - Contrast/Fluoroscopy
  - Indigo Carmine/Sodium Fluorescein dye
- Methods for repair
  - Complex ureterolysis with ureteral stent +/- omental wrap
  - Ureteral reimplantation
  - Ureteral autotransplantation
  - Slit placement only with repair (partial tear, no energy)
  - LEAVE A JP! (AND FOLEY)
Postoperative Evaluation

- Use drain to check for immediate leak
- Imaging
  - 4-6 weeks after stent removal
  - Ultrasound for screening
  - CT Urogram for anatomical details
  - Nuclear Renogram for functional details
- Follow for 18 months

Assessment

- Which is the following the preferred management for distal complete ureteral transection during surgical management of endometriosis?
  - A) Ureteral stent placement
  - B) Ureteroureterostomy
  - C) Ureteral reimplantation
  - D) Transureteroureterostomy
  - E) Ureteral ligation and percutaneous nephrostomy

References


How to Manage the Complications With a Multidisciplinary Team

Errico Zupi MD
University of Tor Vergata Roma

I have no financial relationships to disclose.

At the conclusion of this presentation, the participant will be able to describe how to manage endometriosis using a multidisciplinary approach.

Endometriosis

- Endometrioma
- Peritoneal endometriosis
- Deep endometriosis

- Similar pathogenesis
- Different symptoms
- Different clinical management

Endometriosis is a chronic benign gynecological disease

- Basic research
- Pathogenesis
- Diagnosis
- Medical treatment
- Surgery
- PMA

Multidisciplinary approach

First approach

- Correct diagnosis
- Adequate counselling
- Individualized treatment

Worsening of the disease
Worsening of the disease

Incomplete surgery

Repetitive surgery

Inadequate medical treatment

From diagnosis..... to treatment

Clinical history

Pelvic examination

Imaging

Imaging is needed to evaluate the extension of the disease and to map the DIE lesions

Counselling

Adequate surgical or medical management

Assisted reproduction

From diagnosis..... to treatment

Clinical history

Pelvic examination

Imaging

Imaging is needed to evaluate the extension of the disease and to map the DIE lesions

Counselling

Adequate surgical or medical management

Assisted reproduction

Exacoustos et al 2014

Ultrasound mapping system for the surgical management of deep infiltrating endometriosis

Mapping system gives clinicians the opportunity to decide the best surgical approach, to evaluate the potential need to involve other surgical specialists, to establish a correct, tailored management of the disease, and to properly inform patients of the extent of their disease and the therapeutic options

Exacoustos et al 2014

Management of endometriosis

Previous surgery

Volume/Size

Age

Desire of pregnancy

Symptoms

Management of endometriosis

Previous surgery

Volume/Size

Age

Desire of pregnancy

Symptoms

Surgical approach

Laparoscopic Surgery

Removal of lesions

Restore anatomy

Improve pain and infertility

Surgical treatment of deep endometriosis is challenging because it necessitates both radicality in removing all macroscopic lesions and in preserving organ functions
Surgery cannot be unpredictable...

Divergent forces
Follow the bubbles
Don’t irrigate

Know the anatomy
Use the anatomy
Don’t loose the anatomy

Dissection

Haemostasis Control

Know the energy
Strategy - use different techniques and instruments
Common sense - compression
Surgical complications of diagnostic and operative gynaecological laparoscopy: a series of 29,966 cases

<table>
<thead>
<tr>
<th>Complication</th>
<th>Diagnostic</th>
<th>Mini Laparoscopy</th>
<th>Major Laparoscopy</th>
<th>Advanced Laparoscopy</th>
</tr>
</thead>
<tbody>
<tr>
<td>Repair failure</td>
<td>2</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Anastomosis leakage</td>
<td>1</td>
<td>1</td>
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<td>1</td>
</tr>
<tr>
<td>Bowel injury</td>
<td>5</td>
<td>4</td>
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<td>4</td>
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<tr>
<td>Unrecognised</td>
<td>15</td>
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</tr>
<tr>
<td>Mortality in delay diagnosis</td>
<td>28</td>
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<td>28</td>
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</tr>
</tbody>
</table>

50% WERE NOT NOTICED

Complications in ENDOMETRIOSIS SURGERY

50% of this complications happen in endometriosis surgery

Complications in Gynaecological LAPAROSCOPY

- Bowel injury 0.6 - 0.65%
- Unrecognised 15 - 77%
- Mortality in delay diagnosis 28%

Laparoscopic conservative surgery for stage IV symptomatic endometriosis: short-term surgical complications

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Medical therapy (in hospital)</th>
<th>Minimal surgery</th>
<th>Radical with minimal surgery</th>
</tr>
</thead>
<tbody>
<tr>
<td>Complication</td>
<td>Time to hospital</td>
<td>Time to endoscopy</td>
<td>Time to surgery</td>
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<tr>
<td>Bowel injury</td>
<td>2.3</td>
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<td>2.3</td>
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<tr>
<td>Unrecognised</td>
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<tr>
<td>Mortality in delay diagnosis</td>
<td>4.5</td>
<td>4.5</td>
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</tr>
</tbody>
</table>

What to do: Deep injury

- Separate or figure-of-eight stitches
- Extrameco...doesn’t matter
- Single or double layer
- 3 - 0 resorbable mono/filament

Anastomosis leakage

- Suture +/- Colostomy
- Safety Test
Endometriosis, especially in its more severe expression, needs to be treated by very skilled surgeons able to perform difficult procedures accurately and reducing the risk of iatrogenic fertility impairment. Multidisciplinary approach is mandatory, which must include general surgeons and urologists, to offer to the patients at the time of the procedure, the best specific skills coming from different specialists in treating DIE.
CULTURAL AND LINGUISTIC COMPETENCY

Governor Arnold Schwarzenegger signed into law AB 1195 (eff. 7/1/06) requiring local CME providers, such as the AAGL, to assist in enhancing the cultural and linguistic competency of California’s physicians (researchers and doctors without patient contact are exempt). This mandate follows the federal Civil Rights Act of 1964, Executive Order 13166 (2000) and the Dymally-Alatorre Bilingual Services Act (1973), all of which recognize, as confirmed by the US Census Bureau, that substantial numbers of patients possess limited English proficiency (LEP).

California Business & Professions Code §2190.1(c)(3) requires a review and explanation of the laws identified above so as to fulfill AAGL’s obligations pursuant to California law. Additional guidance is provided by the Institute for Medical Quality at http://www.imq.org

Title VI of the Civil Rights Act of 1964 prohibits recipients of federal financial assistance from discriminating against or otherwise excluding individuals on the basis of race, color, or national origin in any of their activities. In 1974, the US Supreme Court recognized LEP individuals as potential victims of national origin discrimination. In all situations, federal agencies are required to assess the number or proportion of LEP individuals in the eligible service population, the frequency with which they come into contact with the program, the importance of the services, and the resources available to the recipient, including the mix of oral and written language services. Additional details may be found in the Department of Justice Policy Guidance Document: Enforcement of Title VI of the Civil Rights Act of 1964 http://www.usdoj.gov/crt/cor/pubs.htm.

Executive Order 13166, “Improving Access to Services for Persons with Limited English Proficiency”, signed by the President on August 11, 2000 http://www.usdoj.gov/crt/cor/13166.htm was the genesis of the Guidance Document mentioned above. The Executive Order requires all federal agencies, including those which provide federal financial assistance, to examine the services they provide, identify any need for services to LEP individuals, and develop and implement a system to provide those services so LEP persons can have meaningful access.

Dymally-Alatorre Bilingual Services Act (California Government Code §7290 et seq.) requires every California state agency which either provides information to, or has contact with, the public to provide bilingual interpreters as well as translated materials explaining those services whenever the local agency serves LEP members of a group whose numbers exceed 5% of the general population.

If you add staff to assist with LEP patients, confirm their translation skills, not just their language skills. A 2007 Northern California study from Sutter Health confirmed that being bilingual does not guarantee competence as a medical interpreter. http://www.pubmedcentral.nih.gov/articlerender.fcgi?artid=2078538.