Plenary 6 – Reproduction

MODERATORS
Stephen L. Corson, MD
William W. Hurd, MD, MPH
Anthony A. Luciano, MD
Amelia P. Bailey, MD
Caterina Exacoustos, MD
Gulden Menderes, MD
Mark H. Emanuel, MD, PhD
Michal Mara, MD, PhD
Linda-Dalal Shiber, MD
Professional Education Information

Target Audience
This educational activity is developed to meet the needs of residents, fellows and new minimally invasive specialists in the field of gynecology.

Accreditation
AAGL is accredited by the Accreditation Council for Continuing Medical Education to provide continuing medical education for physicians.

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Plenary 6 – Reproduction

Moderators: Stephen L. Corson, William W. Hurd, Anthony A. Luciano

Faculty: Amelia P. Bailey, Mark H. Emanuel, Caterina Exacoustos, Michal Mara, Gulden Menderes, Linda-Dalal Shiber

This session provides material clinically useful to those gynecologists whose practice has reproductive issues as a main component. Topics include a randomized trial of office-based sonography rather than x-ray evaluation of tubal patency, first trimester and interval laparoscopic abdominal cerclage, a survey of current surgical practices for endometriosis and myomas, evaluation of the clinical value of the ESHRE/ESGE classification of uterine cavity structure abnormalities, and comparison of fertility after laparoscopic surgery for adenomyosis or myoma.

Learning Objectives: At the conclusion of this course, the clinician will be able to: 1) Recommend a course of action that best addresses the reproductive problems that are encountered.

Course Outline

12:05  Hysterosalpingo-Foam Sonography (HyFoSy): A Less Painful Procedure for Tubal Patency Testing during Fertility Work-Up, Compared to (Serial) Hysterosalpingography. A Randomized Clinical Trial

M.H. Emanuel

12:15  First Trimester Laparoscopic Cerclage

L-D Shiber


A.P. Bailey

12:32  Needleless Laparoscopic Abdominal Cerclage Placement

G. Menderes

12:38  Modified Classification of Previously Considered Arcuate Uterus: Normal, Dysmorphic or Septate Uterus? An Observational Study on 362 Reclassified Uteri and Correlation to Fertility

C. Exacoustos

12:48  Fertility Saving Surgery for Adenomyosis: Results of Prospective Clinical Comparative Trial

M. Mara

1:05  Adjourn
PLANNER DISCLOSURE
The following members of AAGL have been involved in the educational planning of this workshop and have no conflict of interest to disclose (in alphabetical order by last name).
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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).
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Mark H. Emanuel
Consultant: Smith & Nephew Endoscopy
Other: Royalties: GynaecologIQ BV, Smith & Nephew Endoscopy
Stock ownership: GynaecologIQ BV
Caterina Exacoustos*
William W. Hurd*
Anthony A. Luciano
Grants/Research: Abbott Laboratories, Aegea Medical
Speakers Bureau: Intuitive Surgical
Michal Mara*
Gulden Menderes*
Linda-Dalal Shiber
Grants/Research: Ethicon Endo-Surgery

Asterisk (*) denotes no financial relationships to disclose.
Objective

- Explain the rational, theory, and ergonomics of Hysterosalpingo Foam Sonography (HyFoSy)
- Recognize advantages and disadvantages of HyFoSy compared to Hysterosalpingography
- Summarize the current literature regarding tubal patency testing
- Identify areas where critical information is lacking and specify needs for future studies

In 2007 we have introduced a Gel (ExEm-gel®) as a contrast medium for Sonohysterography as an alternative for saline

Gel instillation offers a more stable filling of the uterine cavity and this technique has minimal inconveniences for the patient
Air Bubbles?
Create Foam!

ExEm-Gel / Foam®
glycerol + hydroxyethylcellulose
no additives
patented
CE-marked
FDA - cleared (gel)
-pending (foam)

>75,000 procedures in Europe, Japan, Korea and Middle East
no allergic reactions
no infections

Pilot RCT comparing HyFoSy with Hysterosalpingography
• design
  - two-center open-labeled prospective randomized trial
• primary outcome
  - pain experienced during the procedure measured by VAS (1.0-10.0 cm)
• materials
  - women aged 18-41 valid indication for tubal patency testing according to the Dutch HOG guidelines
• methods
  - infusion of contrast and foam by instillation pump 100 mL per hour
• sample size calculations
  - estimated 2.0 cm difference with SE 2.0 cm, t-test p=0.05

80% power to reject null-hypothesis of no difference
• Intention-to-treat analysis
• Mann-Whitney U test

<table>
<thead>
<tr>
<th>Primary and secondary outcomes</th>
<th>HyFoSy (n = 118)</th>
<th>HSG (n = 281)</th>
<th>P value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Primary outcome</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Visual patency</td>
<td>1.90 (1.30)</td>
<td>2.7 (2.41)</td>
<td>&lt; .01</td>
</tr>
<tr>
<td>Secondary outcomes</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Visual assessment</td>
<td>2.0 (1.34)</td>
<td>2.5 (1.6)</td>
<td>&lt; .01</td>
</tr>
<tr>
<td>Visual evaluation</td>
<td>1.90 (1.30)</td>
<td>2.7 (2.41)</td>
<td>&lt; .01</td>
</tr>
</tbody>
</table>

Take to Work
- HyFoSy is less painful and time-consuming than HSG
- HyFoSy is accurate and safe
- Single operator
- Outpatient setting
- No need for radiation
- Far more patient-friendly
- Future research: different subsequent management decisions and ongoing pregnancy rates

Thank You!

m@emanuel.nl

References
First Trimester Laparoscopic Cerclage

Linda-Dalal Shiber, M.D.
University of Louisville, Louisville, Kentucky

**Study Objective:** To review the indications, rationale and technique for abdominal cerclage, specifically focusing on a laparoscopic approach to this procedure during the first trimester of pregnancy.

**Design:** This is an educational video directed toward gynecologic surgeons. First, background information on cervical insufficiency is presented, as well as a brief overview of the evidence supporting the efficacy and safety of the laparoscopic approach to abdominal cerclage. A patient case is discussed and a step-by-step description of the technique used to perform laparoscopic cerclage in the first trimester of pregnancy is demonstrated using surgical footage.

**Setting:** The incidence of cervical insufficiency affecting pregnancy is estimated at up to 1%. Cervical cerclage placement is the treatment for this condition. Though most cerclages are placed transvaginally via the Shirodkar or McDonald techniques, abdominal cerclage is necessary in women with a previous, failed, transvaginal cerclage or in women with minimal cervical tissue accessible vaginally. Both laparoscopic and robotic approaches to this procedure have been developed and allow patients to enjoy a more rapid recovery as well as avoiding an unnecessary laparotomy. The observational studies reporting outcomes for laparoscopic-assisted abdominal cerclage quote fetal survival rates of >85% which is comparable with rates for abdominal cerclage. Complication rates are low, also congruent with the laparotomic approach.

**Interventions:** Laparoscopic placement of abdominal cerclage in a patient with cervical insufficiency and a severely shortened cervix diagnosed during the first trimester of pregnancy.

**Conclusion:** With proper patient selection and operative planning, the technique of laparoscopic cerclage is both safe and advantageous in terms of faster recovery. Obstetric outcomes are equivalent if not superior to an open abdominal approach to this procedure.
References


A survey of current practices in the surgical treatment of endometriosis and fibroids

Amelia P. Bailey M.D.
Brigham and Women’s Hospital
Harvard Medical School

Disclosures

Consultant: OmniGuide

Objectives

- As a result of this lecture, attendees should be able to describe the current state of surgical approaches to the treatment of endometriosis and fibroids

Background

- Various procedures used in the treatment of endometriosis and fibroids
- Few studies quantify the different approaches
  - Unsure of how this is altered by subspecialty training
  - Unsure of how this is altered by primary practice location: academic vs private

Specific Aims

- To describe current surgical approaches to the treatment of endometriosis and fibroids by academic and private reproductive endocrinology and infertility subspecialists (REI), minimally invasive gynecologic surgery subspecialists (MIGS), and general gynecology (Gyn) specialists.

Materials and Methods

- Approval obtained from Partners IRB
- Online survey link sent to AAGL and ASRM members during Summer 2012
- 506 actively-practicing post-training gynecologic laparoscopic surgeons (REI, MIGS, Gyn) replied
Statistical Analysis

- Statistical differences were quantified by Kruskal-Wallis comparison
- P<0.05 indicated significance

Results

- Respondent composition was 34.6% REI, 11.5% MIGS, and 54.0% Gyn
- 40.6% of respondents were primarily academic and 59.4% were primarily private
- Median monthly procedure volumes were small for both open and laparoscopic procedures

<table>
<thead>
<tr>
<th>Subspecialty</th>
<th>Endometriosis</th>
<th>Fibroids</th>
</tr>
</thead>
<tbody>
<tr>
<td>REI (n=175)</td>
<td>&lt;1* (0-1)</td>
<td>1-2</td>
</tr>
<tr>
<td></td>
<td>1-2</td>
<td>&lt;1</td>
</tr>
<tr>
<td></td>
<td>1-2</td>
<td>&lt;1</td>
</tr>
<tr>
<td>MIGS (n=58)</td>
<td>0</td>
<td>3-4*</td>
</tr>
<tr>
<td></td>
<td>3-4*</td>
<td>&lt;1</td>
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<tr>
<td></td>
<td>&lt;1</td>
<td></td>
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<tr>
<td></td>
<td>1-2</td>
<td></td>
</tr>
<tr>
<td>Gyn (n=273)</td>
<td>&lt;1</td>
<td>1-2</td>
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<td></td>
<td>&lt;1</td>
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<td></td>
<td>&lt;1</td>
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P-value

- 0.18 <0.001 <0.001 0.12

Results

- Median number of cases for both endometriosis and fibroids performed open and laparoscopically did not significantly differ between academic or private practice.

Survey answer choices: 0, <1, 1-2, 3-4, 5-7, 8-10, 11-15, 16-20, and >20 cases per month

* = significantly different value

Results

- More physicians chose excision to treat endometriosis (58%) over ablation (40%) with a percentage utilizing both interchangeably (1%); this did not differ between academic or private practice.

Summary

- Low number of laparoscopic myomectomies performed each month by REI, MIGS, and Gyn.
- Well below the case volume previously identified as the minimum required to maintain adequate laparoscopic skill levels for advanced minimally invasive gynecologic operations.
<table>
<thead>
<tr>
<th>Strengths</th>
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<tbody>
<tr>
<td>● Large number of complete responses</td>
</tr>
<tr>
<td>● Increased external validity by including a diverse physician population from varied practice types across the world.</td>
</tr>
<tr>
<td>● Accuracy of responses was increased by providing free text choices as appropriate</td>
</tr>
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<table>
<thead>
<tr>
<th>Limitations</th>
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<tbody>
<tr>
<td>● Inflexibility of the design once the survey is initiated</td>
</tr>
<tr>
<td>● Inability to follow-up with additional questions</td>
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<tr>
<td>● Bias from self-selection of a group of respondents.</td>
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<tr>
<td>● Some questions standardized without free text responses.</td>
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<tr>
<th>Conclusion</th>
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<tr>
<td>● Potential technical knowledge gap that can be addressed with focused support in the form of simulation, dry labs, and cadaver labs to maintain optimal laparoscopic skill levels.</td>
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<th>Acknowledgements</th>
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<tr>
<td>● Dr. Antonio Gargiulo</td>
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<tr>
<td>● Dr. Stacey Missmer</td>
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<tr>
<td>● Katharine Correia</td>
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<td>● Dale Myers</td>
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</table>
Needleless Laparoscopic Abdominal Cerclage Placement

Gulden Menderes, M.D.
Yale New Haven Health/ Bridgeport Hospital, Bridgeport, CT

**Study Objective:** To demonstrate a technique of laparoscopic interval abdominal cerclage placement with utilization of a needleless mersilene tape.

**Design:** Step-by-step explanation of the technique using a surgical video.

**Setting:** Cervical insufficiency affects 1% of all pregnancies and up to 8% of those with second- and early third trimester losses (1). The abdominal method has been used in patients with an extremely short cervix in which the transvaginal approach is not technically possible or for those who have experienced an unsuccessful transvaginal procedure(2). With the introduction of the transabdominal cerclage, the fetal survival rate improved from 21 to 89% (3). In an attempt to decrease the surgical morbidity associated with laparotomy, there have been multiple case series and cohort studies in the literature which described the laparoscopic approach for transabdominal cerclage placement (4-7).

**Interventions:** Laparoscopic abdominal cerclage placement was performed as an interval procedure utilizing a needleless mersilene tape, after meticulous skeletonization of the uterine vessels and formation of the peritoneal window.

**Conclusion:** Laparoscopic abdominal cerclage was placed without any complications, providing the patient with the benefits of minimally invasive approach. The risk of bleeding was reduced by meticulous dissection and skeletonization of uterine vessels and eliminating the use of the mersilene tape needle.

**REFERENCES**

Modified Classification of previously considered arcuate uterus: normal, dysmorphic or septate uterus?

An observational study on 362 reclassified uteri and correlation to fertility

C. Exacoustos

Department of Obstetrics and Gynecology, University of Rome Tor Vergata, Rome, Italy

WHAT IS KNOWN ALREADY

Arcuate uterus is a minor uterine defect characterized by a mild concave indentation or contour towards the uterine cavity with central point at obtuse angle (> 90°). It can be categorized, according to the abnormality in the embryological development process, as a canalization defect where there is incomplete resorption of the midline septum.

Septate and arcuate uteri account for about 55% to 66% of uterine malformations.

Congenital uterine anomalies are associated with adverse reproductive outcomes such as infertility, recurrent miscarriages and early preterm labor.

The classification systems proposed for their categorization are associated with some limitations.

Chan YY et al., Ultrasound Obstet Gynecol 2011

In 1979, Buttram and Gibbons proposed a classification arranged into 6 subgroups, which was revised in 1988 by the American Fertility Society (AFS) and is currently widely accepted worldwide.

Class V (septate) and VI (arcuate) anomalies are included in more than one category but cannot be classified individually and precisely.

Gubbini et al., J Minim Invasive Gynecol 2009

Diagnostic methods to detect anomalies are not specified (based only on the subjective impression of the clinician performing the test).

3D TVS vs LPS + HIFU

Accuracy of three-dimensional ultrasound in diagnosis and classification of congenital uterine anomalies

C. Berrón, F. Martínez Ten, R. Cantamaro, D. Díaz, J. Pérez Pedregosa, E. Barrón, E. Labrador, and L. Ruiz López

Three-dimensional ultrasound in the diagnosis of Müllerian duct anomalies and concordance with magnetic resonance imaging.
It is designed having mainly clinical orientation and being based on the anatomy of the female genital tract. Embryological origin has been adopted as the secondary basic characteristic in the design of the main classes.

Cervical and vaginal anomalies are classified in independent co-existant sub-classes.

AIM OF THE STUDY

To evaluate arcuate uterus after the introduction of the new ESHRE/ESGE classification system of female genital anomalies in 2013

SEPTATE or NORMAL?

MATERIALS and METHODS

- Retrospective study: the stored 3D ultrasound uterine volume with diagnosis of arcuate uterus according to Salim classification were re-evaluated
- Analysis of uterine architecture was performed in a standardized coronal plane with the interstitial portions of the Fallopian tubes used as reference points
- The main reproductive problems studied were infertility and miscarriages
**RECLASSIFICATION**

**Class U0 normal uterus:** any uterus having either straight or curved interostial line but with an internal indentation at the fundal midline not exceeding 50% of the uterine wall thickness.

**Class U1c or others:** all minor deformities of uterine cavity including those with an inner indentation at the fundal midline level of less than 50% of the uterine wall thickness. Usually, dysmorphic uteri are smaller in size.

**Class U2 or septate uterus:** any uterus with normal outline and an internal indentation at the fundal midline exceeding 50% of the uterine wall thickness.

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**MEASUREMENTS**

Uterine cavity width (W): the distance between the two internal tubal ostia.

Fundal indentation or septum length (F): the distance between the midpoint of the line adjoining the tubal ostia and the distal tip of fundal indentation or uterine septum.

Indentation angle ($\alpha$): the angle between the two endometrial layers.

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**SEPTATE UTERUS**

**Uterine wall thickness**

- F $>$ 50%
- F $<$ 50%

*Gubbini et al., J Minim Invasive Gynecol 2009*

*Ludwig et al., Human Reprod. Advance 2014*

---

The thickness of the uterine wall vary in different regions of the uterus.

It is necessary to provide recommendations for the diagnostic work-up of female genital anomalies.

1. In a letter to Human Reproduction's editor (2014), Grimbizis suggests that the mean thickness of the anterior and posterior wall in 2D or 3D US could be used as the reference point.

2. According to Gubbini et al. (2009), we think that the correct measure is the unaffected fundal myometrium, the distance between the midpoint of the interostial line and the fundus external contour.

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**NORMAL (U0) or DYSMORPHIC (U1c) UTERUS**

- Case 1 (L: 7 mm; W: 7 mm): septate
- Case 2 (L: 10 mm; W: 14 mm): normal
- Case 1 (L: 10 mm; W: 6 mm): septate
- Case 2 (L: 10 mm; W: 16 mm): septate
Septate uteri (U2) vs Normal/dysmorphic uteri (U0/U1c)

**Patients characteristics**

<table>
<thead>
<tr>
<th></th>
<th>Septate uteri</th>
<th>Normal/dysmorphic uteri</th>
<th>Total</th>
<th>p value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Patients (n%)</td>
<td>180 (49.7%)</td>
<td>182 (50.3%)</td>
<td>362</td>
<td>ns</td>
</tr>
<tr>
<td>Age (years)</td>
<td>33.8±5.8</td>
<td>35.9±5.7</td>
<td>34.8±5.8</td>
<td>0.0006</td>
</tr>
<tr>
<td>BMI (kg/m²)</td>
<td>21.7±2.7</td>
<td>22.3±3.6</td>
<td>21.9±3.0</td>
<td>ns</td>
</tr>
<tr>
<td>Menarche (years)</td>
<td>12.4±1.5</td>
<td>12.4±1.5</td>
<td>12.4±1.5</td>
<td>ns</td>
</tr>
<tr>
<td>Gravidity rate</td>
<td>0.7±1.2</td>
<td>0.9±1.4</td>
<td>0.8±1.3</td>
<td>ns</td>
</tr>
<tr>
<td>Parity rate</td>
<td>0.1±0.3</td>
<td>0.2±0.5</td>
<td>0.2±0.4</td>
<td>0.02</td>
</tr>
<tr>
<td>Undesired fertility (n%)</td>
<td>66 (37%)</td>
<td>51 (28%)</td>
<td>117 (32.3%)</td>
<td>ns</td>
</tr>
<tr>
<td>Pregnancy desire (n%)</td>
<td>114 (63%)</td>
<td>131 (72%)</td>
<td>245 (67.7%)</td>
<td>ns</td>
</tr>
</tbody>
</table>

**Uterine morphology**

<table>
<thead>
<tr>
<th></th>
<th>Septate uteri</th>
<th>Normal/dysmorphic uteri</th>
<th>Total</th>
<th>p value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Indentation/septum angle (grade)</td>
<td>128.4±10.1</td>
<td>140.8±8.3</td>
<td>134.6±11.1</td>
<td>&lt;0.0001</td>
</tr>
<tr>
<td>Indentation/septum width (mm)</td>
<td>26.8±5.0</td>
<td>25.7±5.1</td>
<td>26.2±5.1</td>
<td>0.03</td>
</tr>
<tr>
<td>Indentation/septum length (mm)</td>
<td>6.3±1.8</td>
<td>4.3±1.0</td>
<td>5.3±1.7</td>
<td>&lt;0.0001</td>
</tr>
<tr>
<td>Free fundal myometrial wall (mm)</td>
<td>8.3±1.7</td>
<td>11.0±2.4</td>
<td>9.7±2.5</td>
<td>&lt;0.0001</td>
</tr>
</tbody>
</table>

**RESULTS**

- Septate uteri (U2) have an indentation angle larger than septate uteri.
- Indentation or septal length is shorter in normal/dysmorphic uteri than in septate uteri.
Free fundal myometrial wall is longer in normal/dysmorphic uteri than septate uteri.

Normal/dysmorphic uteri have a septal or indentation width smaller than septate uteri.

**RESULTS**

### Reproductive problems

<table>
<thead>
<tr>
<th></th>
<th>Septate uteri (114 patients)</th>
<th>Normal/dysmorphic uteri (131 patients)</th>
<th>Total (245 patients)</th>
<th>p value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Miscarriages</td>
<td>37 (32.5%)</td>
<td>46 (35.1%)</td>
<td>83 (33.9%)</td>
<td>Ns</td>
</tr>
<tr>
<td>One miscarriage</td>
<td>13 (11.4%)</td>
<td>11 (8.4%)</td>
<td>24 (9.7%)</td>
<td>Ns</td>
</tr>
<tr>
<td>Two or more miscarriages</td>
<td>24 (21.1%)</td>
<td>35 (26.7%)</td>
<td>59 (24.1%)</td>
<td>Ns</td>
</tr>
<tr>
<td>Infertility</td>
<td>65 (57.2%)</td>
<td>75 (57.2%)</td>
<td>140 (57.1%)</td>
<td>Ns</td>
</tr>
<tr>
<td>Primary infertility</td>
<td>47 (41.2%)</td>
<td>60 (45.8%)</td>
<td>107 (43.7%)</td>
<td>Ns</td>
</tr>
<tr>
<td>Secondary infertility</td>
<td>18 (15.8%)</td>
<td>15 (11.5%)</td>
<td>33 (13.5%)</td>
<td>Ns</td>
</tr>
<tr>
<td>Live births</td>
<td>12 (10.8%)</td>
<td>10 (7.6%)</td>
<td>22 (9.0%)</td>
<td>Ns</td>
</tr>
<tr>
<td>Term delivery</td>
<td>10 (8.8%)</td>
<td>10 (7.6%)</td>
<td>20 (8.2%)</td>
<td>Ns</td>
</tr>
<tr>
<td>Preterm delivery</td>
<td>2 (1.8%)</td>
<td>0</td>
<td>2 (0.8%)</td>
<td>Ns</td>
</tr>
</tbody>
</table>

### CONCLUSIONS

- According to ESHRE/ESGE classification, of the 362 uteri previously classified as arcuate, 180 (49.7%) uteri are considered septate and 182 (50.3%) normal/dysmorphic.

- Morphological features are significantly different into the two new groups.

- Despite the reclassification, reproductive problems (infertility and miscarriage rate) are very similar.

- It’s necessary to report a bias in patients’ enrollement because a large percentage of women who come to our hospital are subfertile.

### WIDER IMPLICATIONS OF THE FINDINGS

The diagnosis of normal/dysmorphic or septate uterus on the basis of ESHRE/ESGE criteria may result in difficulties in counseling and in treatment options in women who experience miscarriages and subfertility

ESHRE/ESGE classification is not supported by retrospective results and prospective studies of corrective surgery.

It’s necessary to perform prospective randomized studies with 3D TVS diagnosis and ESHRE/ESGE classification followed by metroplasty and fertility outcomes. This could help to refine selection criteria for surgery, resulting in improved long-term outcomes in women with uterine anomalies.
REFERENCES


Fertility saving surgery for adenomyosis:
results of prospective clinical comparative trial

Michal Mara, MD, PhD, Assoc. Prof.  
Department of Ob & Gyn, General Faculty Hospital and the 1st Medical Faculty of the Charles University, Prague, Czech Republic

Disclosure

I have no financial relationships to disclose.

Learning Objectives

• To define various forms and typical diagnostic features of adenomyosis  
• To demonstrate different types of fertility saving procedures for adenomyosis  
• To apply the results of comparative clinical trial focused on surgical treatment of adenomyosis and fibroids

„Anonymous disease“

• under-estimated  
• under-diagnosed  
• poorly understood  
• uneasily manageable

Definitions

• heterotopy of the endometrial islands in myometrium  
  • „cystosarcoma adenoides uteri“  
  • association of intrauterine endometrium with the islands of endometrium in uterine musculature („adenomyosis interna“)  
  • Frankl O. Am J Obstet Gynecol 1925;10:680-4  
• benign invasion of endometrium into myometrium  
  • diffuse enlargement of uterus, primarily non-inflammatory  
  • scattered, widely-distributed endometrial glands or stromal tissue found throughout the myometrium  

Clinical - pathological forms

• 1. Diffuse adenomyosis  
• 2. Focal adenomyosis  
  • 2a. adenomyoma  
  • 2b. cystic adenomyosis  
• 3. Polypoid adenomyoma  
  • 3a. typical  
  • 3b. atypical  
• 4. Other forms  
  • 4a. Endocervical type of adenomyoma  
  • 4b. Retroperitoneal adenomyoma


The Residents

Diagnoses of adenomyosis

- Uneasy
- Non-specific clinical signs & symptoms
  - many asymptomatic
  - bleeding / pain (dysmenorrhea) / infertility
- Imaging
  - Ultrasound: hyperechogenic patches, lacunas
  - MRI: junctional zone
  - Hysteroscopy?
- Ca-125
- Histology

Imaging of adenomyosis

- Ultrasound
- MRI

Diffuse adenomyosis

- Video #1 (from Color Doppler Imaging Ultrasonography)

Types of uterus sparing surgery

- Complete excision
  - focal lesions
  - adenomyectomy, cystectomy
- Partial excision (debulking)
  - diffuse lesions
  - prevention of „functional hysterectomy“
- Non-excision techniques
  - destruction using energies
  - laparoscopic uterine artery occlusion (LUAO)

Our clinical trial

- Prospective, non-randomized, one center
- University Ethical Board approval
- Premenopausal women with pregnancy plans included
- Treated with laparoscopic resection for severe adenomyosis or uterine fibroids
- Clinical & reproductive results

Results

<table>
<thead>
<tr>
<th></th>
<th>2004 - 2013</th>
<th>Adenomyosis resection</th>
<th>Myomectomy</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of patients</td>
<td>27</td>
<td>(20 diffuse)</td>
<td>27</td>
</tr>
<tr>
<td>Mean age (years)</td>
<td>33.8</td>
<td>33.6</td>
<td></td>
</tr>
<tr>
<td>Mean follow-up (months)</td>
<td>49.2</td>
<td>48.8</td>
<td></td>
</tr>
<tr>
<td>Laparo-conversion (p&lt;0.01)</td>
<td>10 (37%)</td>
<td>6 (22%)</td>
<td></td>
</tr>
<tr>
<td>Major complications (peri-procedural)</td>
<td>0</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>Recurrence</td>
<td>(1 hysterectomy)</td>
<td>1 (1 re-myomectomy)</td>
<td></td>
</tr>
<tr>
<td>Pregnancy rate</td>
<td>8/11 (73%)</td>
<td>13/16 (81%)</td>
<td></td>
</tr>
<tr>
<td>Delivery rate</td>
<td>8/11 (no serious pregnancy complication)</td>
<td>13/16</td>
<td></td>
</tr>
</tbody>
</table>
Excision of cystadenomyoma (complete resection)

Video #2 (from Laparoscopy)

Debulking of adenomyosis (partial resection + LUAO)

Video #3 (from Laparoscopy)

Summary

- Uterus saving surgery for adenomyosis can be feasible and effective
  - dysmenorrhea 81%
  - menorrhagia 50%
  - pregnancy rates > 46%
- Data supporting various types of treatment are lacking or suboptimal
  - urgent need of larger, well designed, comparative, clinical trials

References


Thank you for your attention!
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](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](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](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.

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