



International Federation of Gynecology and Obstetrics





Endometriosis: Medical and Surgical Management of Pain and Infertility

FIGO
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ICMART Glossary



**A disease
characterized by the presence of endometrium-like epithelium
and stroma outside the endometrium and myometrium.**

Intrapelvic endometriosis can be located superficially on the peritoneum (peritoneal endometriosis), can extend 5 mm or more beneath the peritoneum (deep endometriosis) or can be present as an ovarian endometriotic cyst (endometrioma)



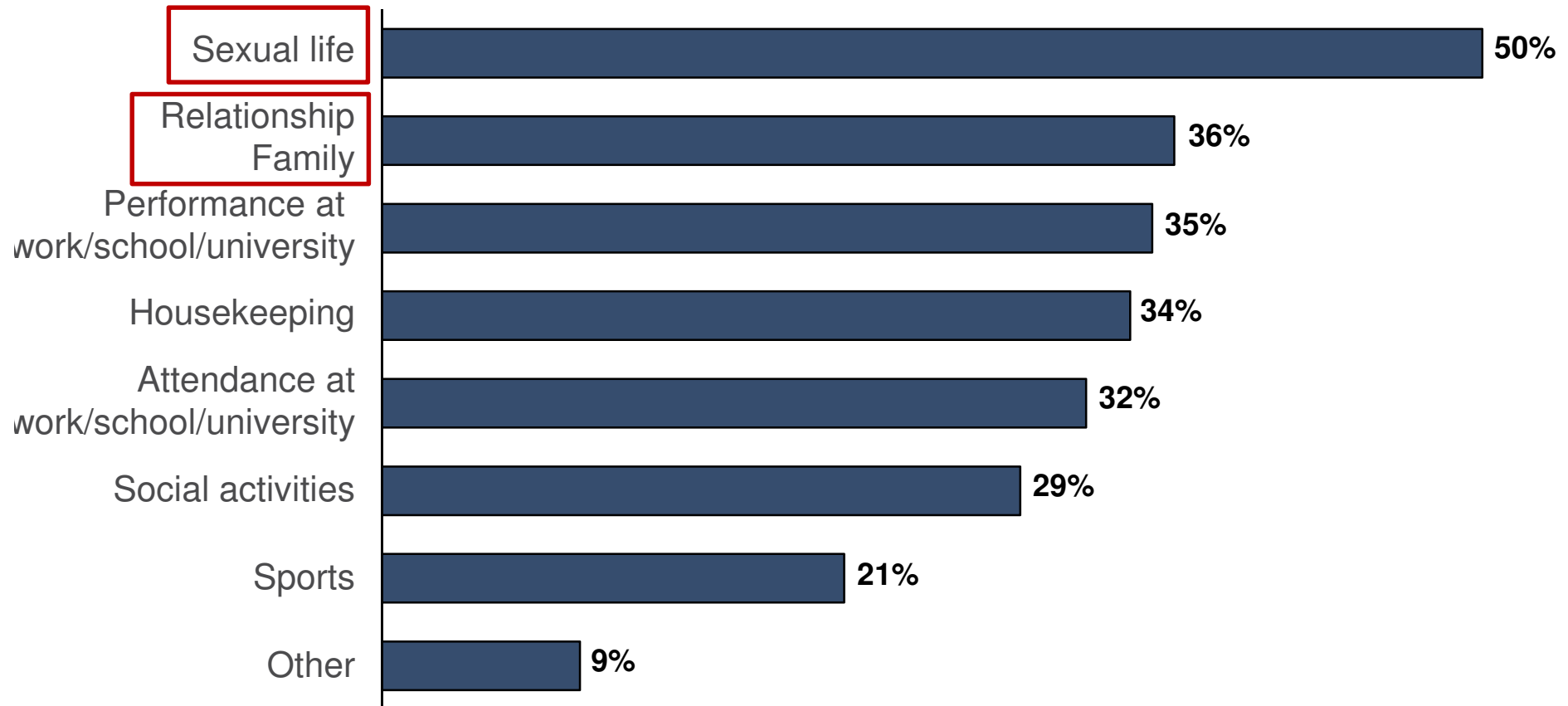


Endometriosis Symptoms *e*

- severe dysmenorrhoea
- deep dyspareunia
- chronic pelvic pain
- ovulation pain
- cyclical or perimenstrual symptoms (e.g. bowel or bladder associated) with or without abnormal bleeding
- infertility
- chronic fatigue.
- **The predictive value of any one symptom or set of symptoms remains uncertain as each of these symptoms can have other causes (and a significant proportion of affected women are asymptomatic)**

Impact on quality of life in the last 12 months

- Activities negatively impacted by symptoms (n=2,753 in eight countries)





Endometriosis Prevalence



Endometriosis affects an estimated **1 in 10 women** during their reproductive years

Rogers et al, Reprod Sci 2009;16:335-346

1,761,687,000 women in the world aged 15 - 49

World Bank Population Projection Tables by Country and Group for 2010

176 million women worldwide
during the prime years of their lives

Socio-economic burden



DRUGS	DIAGNOSTICS	SURGERY	HEALTH CARE	OTHER
NSAIDs Progestagens c-OCP Danazol Gestrinone GnRH-a Add-back HRT Mirena coil Antibiotics Anti-depressants	Ultrasound scan Internal scan MRI Blood tests Swabs Barium enema Sigmoidoscopy Endoscopy Bone scans X-rays	Laparoscopy Laparotomy Hysteroscopy Hysterectomy Endometrial ablation Theatre costs	GP Gynaecologist Nurse Urologist Gastroenterologist Anaesthetist Radiologist Theatre staff Haematologist Counsellor Physiotherapist Psychiatrist	ART A&E visits Hospitalisation Alternatives Transportation Child care Work absence ↓ productivity ↓ education ↓ activities



WORLD ENDOMETRIOSIS SOCIETY (WES)

CONSENSUS MEETINGS and STATEMENTS

Human Reproduction, Vol.28, No.6 pp. 1552–1568, 2013

Advanced Access publication on March 25, 2013 doi:10.1093/humrep/det050

human
reproduction

ORIGINAL ARTICLE *Gynaecology*

Consensus on current management of endometriosis

**Neil P. Johnson^{1,2,3,*} and Lone Hummelshoj¹, for the World
Endometriosis Society Montpellier Consortium[†]**

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World Endometriosis Society Consensus on the Classification of Endometriosis

- Accepted for publication July 28, 2016, Human Reproduction
- Neil P. Johnson, Lone Hummelshoj, G. David Adamson, Jörg Keckstein, Hugh S. Taylor, Mauricio S. Abrao, Deborah Bush, Ludwig Kiesel, Rulla Tamimi, Kathy L. Sharpe-Timms, Luk Rombauts, and Linda C. Giudice for the World Endometriosis Society Sao Paulo Consortium



WERF EPHect Project

ARTICLE IN PRESS

VIEWS AND REVIEWS

World Endometriosis Research Foundation Endometriosis Phenome and Biobanking Harmonisation Project: I. Surgical phenotype data collection in endometriosis research

Christian M. Becker, M.D.,^{a,b} Marc R. Laufer, M.D.,^{c,d,e} Pamela Stratton, M.D.,^f Lone Hummelshoj,^g
Stacey A. Missmer, Sc.D.,^{d,e,h,i} Krina T. Zondervan, D.Phil.,^{a,b,j} and G. David Adamson, M.D.,^{g,k} for the WERF
EPHect Working Group

Fertil Steril. 2014 Nov;102(5):1213-22.



Endometriosis Diagnosis (i)

For a **definitive diagnosis** of endometriosis visual inspection of the pelvis at **laparoscopy is the gold standard** investigation, unless disease is visible in the vagina or elsewhere.

Kennedy et al, Fertil Steril 2005;20:2698-2704 (ESHRE Guideline)

The **diagnostic delay** is on average **7 years** depending on health care settings.

Nnoaham et al, Fertil Steril 2011;96(2):366-73



Endometriosis Diagnosis (ii) *e*

Positive histology confirms the diagnosis of endometriosis; **negative histology does not exclude** it. Whether histology should be obtained if peritoneal disease alone is present is controversial: visual inspection is usually adequate but histological confirmation of at least one lesion is ideal.

In cases of ovarian **endometrioma** (>4 cms in diameter), and in deeply infiltrating disease, **histology should be obtained** to identify endometriosis and to exclude rare instances of malignancy.



Endometriosis Investigations (i)



Compared to laparoscopy, trans-vaginal **ultrasound** (TVS) has no value in diagnosing peritoneal endometriosis, but it is a useful tool both to make and to exclude the diagnosis of an ovarian **endometrioma**.

TVS **may have a role** in the diagnosis of disease involving the **bladder or rectum**.



Endometriosis Investigations (ii)



At present, there is **insufficient evidence** to indicate that magnetic resonance imaging (**MRI**) is a useful test to diagnose or exclude endometriosis compared to laparoscopy.

MRI reserved for **equivocal ultrasound** results in cases of **rectovaginal** or **bladder** endometriosis.

Serum CA-125 levels may be elevated in endometriosis. However, measuring serum **CA-125** levels has **no value** as a diagnostic tool.



MANAGEMENT OF PELVIC PAIN ASSOCIATED WITH ENDOMETRIOSIS





Comprehensive Management Approach

- Life-altering disease for many patients
- Comprehensive evaluation/plan/treatment
 - NSAID's (+/-), analgesics (1)
 - Healthy lifestyle: diet, exercise, mind-body
 - Self-help organizations, personal counseling
 - Referral as necessary (e.g. pain clinic, other)
 - Anxiolytics, antidepressants
- Empathetic approach
- Focus on objective activities of daily living

(1) Allen. Cochrane Database Syst Rev. 2005 Oct 19;(4):CD004753.



Results of Ovarian Suppression

- Initial pain relief ~ 75-90% (1)
- Ovarian suppression drugs equivalent (1-7)
- GnRHa more effective if initial failure (1)
- Median time pain recurrence ~ 6 months (8, 9)
- ? Recurrence related to stage
 - Minimal recurrence higher than mild or moderate (10)
 - Pain relief at 5 years: minimal 65%, severe 33% (11)

(1) Olive et al. In Modern Mgt Endo. Eds. Sutton, Jones, Adamson. 2006:333-50.

(2) Prentice et al. Cochrane Database. 2000;(2):CD002122.

(3) Moore et al. Cochrane Database. 2000;(2):CD001019.

(4) Prentice et al. Cochrane Database. 2000;(2):CD000346.

(5) Selak et al. Cochrane Database. 2001;(4):CD000068.

(6) Selak. Cochrane Database Syst Rev. 2007 Oct 17;(4):CD000068.

(7) Davis. Cochrane Database Syst Rev. 2007 Jul 18;(3):CD001019.

(8) Miller et al. Fertil Steril. 1998;70:293-6.

(9) Fedele et al. Am J Obstet Gynecol. 2000;183:1462-7.

(10) Sutton et al. Fertil Steril. 1994;62:696-700.

(11) Ferrero. Expert Opin Pharmacother. 2010 May;11(7):1123-34.



Add-back Therapy

- Purpose
 - Eliminate or **reduce bone loss**
 - Ablate side effects of **hypoestrogenism**
 - Maintain or enhance therapeutic efficacy
- Multiple regimens
 - **Estrogen (CEE) 0.625 mgm plus norethindrone acetate 5 mgm daily (1)**

(1) Surrey et al. Obstet Gynecol. 2002;99:709-19.



Duration of Treatment With GnRHa

- **Initial Treatment**
 - 6 months generally recommended
 - **3 months equivalent** to 6 months (1)
- **Retreatment**
 - 6 months generally recommended
 - **3 months equivalent** to 6 months (2)
- Continuous
 - With add-back ?

(1) Orwoll et al. Am J Obstet Gynecol. 1994;171:1221-5.

(2) Adamson et al. Am J Obstet Gynecol. 1997;177:1413-8.



Other Medical Treatments

- Pentoxifylline (1)
 - No benefit for pain or infertility
- **Complementary Alternative Medicine, Chinese Herbal Medicine (2)**
 - ? Comparable to gestrinone for pain relief, with fewer side effects
 - May be more effective than danazol:
 - More rigorous research is required
- Anti-TNF-alpha (3)
 - Insufficient evidence to use for pain
- **Continuous vs. cyclic oral contraceptives**
 -
- **Levonorgestril Intrauterine System (5)**
 - **Growing evidence useful**
- **Aromatase inhibitors** (e.g. letrozole) (6)
 - Promising effect on pain, but **dearth of evidence**
- Rosiglitazone or valproic acid weak evidence
- Anti-angiogenesis research only
- ? GnRH antagonists (e.g. elagolix)
- ? Antiprogestins (e.g. mifepristone)

(1) Lv. Cochrane Database Syst Rev. 2009 Jul 8;(3):CD007677.

(2) Flower. Cochrane Database Syst Rev. 2009 Jul 8;(3):CD006568.

(3) Lv. Cochrane Database Syst Rev. 2010 Mar 17;3:CD008088.

(4) Edelman. Cochrane Database Syst Rev. 2005 Jul 20;(3):CD004695.

(5) Anpalagan. J Minim Invasive Gynecol. 2008 Nov-Dec;15(6):663-6. Epub 2008 Sep 6.

(6) Nawathe. BJOG. 2008 Jun;115(7):818-22.

Results of Laparoscopic Treatment: Summary

• Pain-free	37-100%	"Estimate" }	
• Improved	18-80%		80%
• No change	0-36%		15%
• Worse	0-13%		5%
• Recurrence			
— 1 year	10-15%		
— 5 years	20-40%		
• Laparoscopy			
— Beneficial (1)			
— OR = 7.72 (2)			

(1) Yeung. J Minim Invasive Gynecol. 2009 May-Jun;16(3):269-81.

(2) Jacobson TZ. Cochrane Database Syst Rev. 2009 Oct 7;(4):CD001300.



Severe Endometriosis and Pain: Results of Laparoscopic Treatment

- Severe Disease
 - Initial relief superior to minimal/mild
 - Higher risk of recurrence
 - Recurrence rates 10-20% per year
- Deep rectovaginal lesions
 - Postoperative relief 70%
 - Recurrence of pain 33%
 - Severe pain at 5 years 5%
- “Primum non nocere”

(1) Redwine et al. Fertil Steril. 2001;76:358-65.

(2) Schweppe et al. Fertil Steril. 2002;78:763-6.

Chronic Pain and Adhesions: What is the relationship?

- Role of adhesions **unclear**
 - ? Distortion of anatomy
 - ? Other
- No documented relationship with
 - Pain severity and/or duration (1)
 - vs. adhesion location and/or extent
- Staging systems not helpful
- Adhesions in 25 % of CPP vs. 17 % of non-CPP (2)
 - (1) Peters et al. Br J Obstet Gynaecol. 1992;99:50-62.
 - (2) Stout et al. Am J Obstet Gynecol. 1991;164:73-9.

Chronic Pain and Adhesions: Results of Adhesiolysis

- Role of adhesiolysis **unclear**
 - Uncontrolled studies
 - Pain relief 60-90% (1)
 - Randomized clinical trials Not effective (2)
- Incidence of reformation of adhesions (3)
 - Initially minimal/mild 33%
 - Initially severe 67%
 - Initially extensive 90%
- Adhesion barriers (non-resorbable) may help (4)
 - (1) Swank et al. *Curr Opin Obstet Gynecol.* 2004;16:313-8.
 - (2) Hammoud et al. *Fertil Steril.* 2004;82:1483-91.
 - (3) Diamond et al. *Fertil Steril.* 1987;47:864-6.
 - (4) Sachar et al. In Sutton, Jones, Adamson. 2006:93-104.



Endometriosis and Pain: Role of LUNA

- LUNA + Endo Ablation (1,2) **RELIEF**
 - RCT laser vs. no treatment
 - Diagnostic laparoscopy only 22.6%
 - Endometriosis laser ablation 62.5%
 - Mild and moderate (excl. minimal) 73.7%
 - Long term (88.6 mos:77-104 mos) 60%
- Cochrane review 1999: **Insufficient evidence** (3)
- Nerve interruption for dysmenorrhea: Limited evidence (4)
- RCT: no reduction in recurrence by adding LUNA (5)
- ? Reasonable if already operating &/or uterosacral nodules

(1) Sutton et al. Fertil Steril. 1994;62:696-700.

(2) Jones et al. JSLS. 2001;5:111-5.

(3) Wilson. Cochrane Database Syst Rev. 2000;(2):CD001896.

(4) Lathe. Acta Obstet Gynecol Scand. 2007;86(1):4-15.

(5) Vercellini. Fertil Steril. 2003;80:310-9.

Presacral Neurectomy: Results and Indications

- Results of published studies
 - PCRT: effective for midline dysmenorrhea (1)
 - PCRT: not effective (2)
 - Cochrane review: **insufficient evidence** (3)
 - PCRT: relief at 1 year (4)
 - Stage I-III 85%
 - Stage IV 75%
 - Deep rectovaginal 57%
- ? Indications for use of presacral neurectomy
 - **Highly selected** patients
 - Primarily **midline dysmenorrhea**
 - Excellent surgeons
 - Success rate 37-89% (5)

(1) Tjaden et al. Obstet Gynecol. 1990;76:89-91.

(2) Candiani et al. Am J Obstet Gynecol. 1992;167:100-3.

(3) Wilson et al. Cochrane Database Syst Rev. 2000;(2):CD001896.

(4) Zullo et al. Am J Obstet Gynecol. 2003;189:5-10.

(5) Palomba et al. In Sutton, Jones, Adamson. 2006:167-76.



Endometriosis and Pain: Role of Appendectomy

- Incidence (1-3)
 - Involved in 17% of patients with bowel endo
 - Pathology in 50-80% of “endo + pain” patients
- Results of appendectomy (4)
 - Complete relief in up to 97% of patients
- Indications
 - **Chronic right-sided pain** and endometriosis

(1) Berker et al. JMIG. 2005;12:206-9.

(2) Lyons et al. JAAGL. 2001;8:522-4.

(3) Harris et al. JAAGL.2001;8:536-41.

(4) AlSalilli et al. JAAGL. 1995;2:139-42.



Hysterectomy and/or Oophrectomy

- Indications
 - Severe symptoms + failure other treatment + no fertility desires (1)
 - 20% of chronic pain patients (2)
 - Hysterectomy benefits
 - Retrograde menstruation
 - Adenomyosis
 - Other (e.g. myomas)
 - Oophrectomy benefits
 - Endometriomas
 - Hypoestrogenism
 - Retrograde menstruation
 - ? Improve outcome for bladder/bowel endometriosis(3)
- (1) Lefebvre et al. J Obstet Gynaecol Can. 2002;24:37-61.
(2) Carter. JSLS. 1998;2:129-39.
(3) Urbach et al. Dis Colon Rectum. 1998;41:1158-64.

Endometriosis and Pain: Results of Hysterectomy +/- Oophrectomy

- Hysterectomy alone
 - Pain relief 80%
 - Persistent pain 22% (1)
 - Symptom recurrence 15-30%
 - Additional surgery 5-10%
- Hysterectomy with oophrectomy
 - Symptom recurrence 10%
 - Additional surgery 3-4% (2)
 - Hormonal replacement appropriate (3)
- If pain recurs, consider
 - Ovarian suppression
 - Re-operation for resection of residual disease
 - Re-operation for oophrectomy if not already performed
 - Ovarian remnant (4)

(1) Stovall et al. Obstet Gynecol. 1990;75:666-9.

(2) Namnoum et al. Fertil Steril. 1995;64:898-902.

(3) Al Kadri. Cochrane Database Syst Rev. 2009 Jan 21;(1):CD005997.

(4) Unger et al. Am j Obstet Gynecol. 2001;184:235-6.



Pain Outcomes: Surgery vs. Ovarian Suppression

- Initial surgery
 - Superior to ovarian suppression
 - in patients with more severe disease
- Not different with
 - Minimal/mild disease
 - Chronic pelvic pain
 - Previously resected disease



Management of Endometriosis: Combined Therapy

Medical therapy prior to surgery

- Possibly useful: pain management prior to scheduled surgery in more severe cases

- Medical therapy following surgery

- If known or suspected implants remain
- For pain management
 - OC's first choice in most cases
 - GnRHa for persistence/recurrence
 - Danazol, progestogens as necessary
- Insufficient evidence for benefit before or after (2)
- Experimental medical interventions (2)
 - Aromatase inhibitors, gestrinone, antiprogestins, SPRM's (RU-486), GnRH antagonists, TNF alpha inhibitors, angiogenesis inhibitors, pentoxifyline & other immunomodulators, MMP's, E receptor beta agonists

(1) Yap. Cochrane Database Syst Rev. 2004;(3):CD003678 .

(2) Olive. In Sutton, Jones, Adamson. 2006:331-50.



MANAGEMENT OF INFERTILITY ASSOCIATED WITH ENDOMETRIOSIS





Biologic Mechanisms That Might Link Endometriosis and Infertility

- Distorted pelvic **anatomy**
- Altered **peritoneal** function
- Altered **hormonal** & cell-mediated function
- **Endocrine** and ovulatory abnormalities
- Impaired **implantation**
- Oocyte and **embryo** quality
- Abnormal **uterotubal** transport

ASRM. Fertil Steril 2012;98:591-8.

Ovarian Suppression For Fertility

- No evidence of fertility benefit from ovarian suppression: 25 RCTs (1)
 - Costs and delay time to pregnancy
- GnRHa treatment before IUI is not recommended
 - 1 RCT suggesting benefit IVF and IUI
 - Insufficient evidence to determine benefit in IUI alone (2)

(1) Hughes. Cochrane Syst Rev 2007 Jul 18;(3):CD000155.

(2) Rickes. Fertil Steril 2002;78(4):757-62.

Infertility Outcomes: Ovarian Suppression and Surgery

- Adjunct to Surgery (16 RCTs)
 - Preoperative
 - No data conclusively show benefit (1)
 - Postoperative
 - No data show benefit (1)
 - Does not improve fertility (A. Level 1b)(2,3)
- Delay in attempting pregnancy, costs, side effects render **ovarian suppression not appropriate**

(1) Yap. Cochrane Database Syst Rev. 2004;(3):CD003678.

(2) ESHRE guidelines. Hum Reprod 2005;20:2698-704.

(3) RCOG. Guideline No XX. 2005.

Endometriosis Treatment

Stage I and II

TABLE 1

Cycle fecundity in women with stage I or II endometriosis, according to treatment.

Group	Unexplained infertility	Endometriosis-associated infertility			
	Guzick et al. (27)	Deaton et al. (28)	Chafikin et al. (29)	Fedele et al. (30)	Kemmann et al. (31)
Treatment					
No treatment or intracervical insemination	0.02	0.033	—	0.045	0.028
IUI	0.05 ^a	—	—	—	—
Clomiphene	—	—	—	—	0.066
Clomiphene/IUI	—	0.095 ^a	—	—	—
Gonadotropins	0.04 ^a	—	0.066	—	0.073 ^a
Gonadotropin/IUI	0.09 ^a	—	0.129 ^a	0.15 ^a	—
IVF	—	—	—	—	0.222 ^a

^a $P < .05$ for treatment vs. no treatment.

ASRM Practice Committee. Endometriosis and infertility. Fertil Steril 2006.

OS + IUI Appropriate
BEFORE Laparoscopy



Laparoscopy Prior to OS/IUI

- Insufficient data to recommend laparoscopic surgery prior to OS/IUI
- Unless
 - History
 - Evidence of anatomic disease
 - Sufficient to justify the physical, emotional, financial and time costs

(1) Tanahatoc. Fertil Steril 2003;79(2):361-6.

(2) Tanahatoc. Hum Reprod 2005;20(11):3225-30.

When To Do Laparoscopy?

- Younger women (?<37 years of age)
- Short duration of infertility (<4 years)
- Normal male factor
- Normal or treatable uterus
- Normal ovulation, or
- Easily treatable ovulation disorder
- Limited prior treatment
- Appropriate candidate for laparoscopy
 - “Treatable” disease reasonably suspected (NNT)
 - OR= 1.66 (1)
 - No contraindications to laparoscopy
 - Patient accepts 9-15 months attempting before IVF

(1) Jacobson. IVF Cochrane Database Syst Rev. 2010 Jan 20;(1):CD001398.

(2) ASRM Practice Cmttee. Fertil Steril. 2006;86(Suppl 4):S156-60.

Infertility Outcomes: Surgery

- **Moderate/Severe Disease**

- Severe anatomic distortion
- **Very low background pregnancy rate**
- Numerous uncontrolled trials show benefit
- L/S > laparotomy: RR 1.87; p=0.031 (1)
- Surgery indicated for invasive, adhesive, cystic endometriosis (Evidence level 3) (2,3)
- **Conservative surgical therapy with laparoscopy and possible laparotomy are indicated.** (4)
- **Repeat** surgery rarely indicated (4)

(1) Adamson. Fertil Steril 1993;59(1):35-44.

(2) RCOG Guideline No. 24. 2006.

(3) ESHRE Endometriosis Guideline. HR 2014;29(3):400-12.

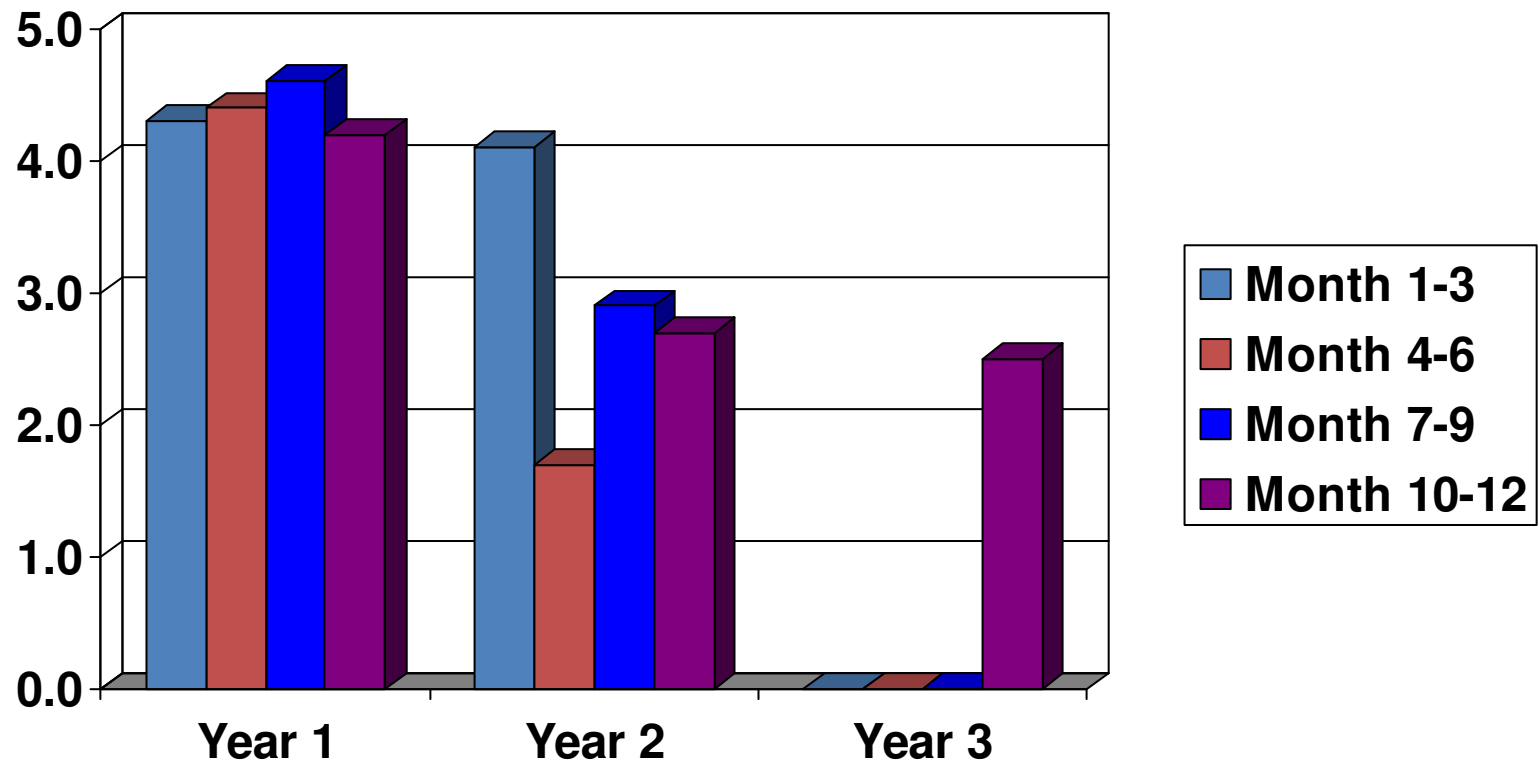
(4) ASRM Practice Committee. Fertil Steril 2012;98:591-8.



ESTIMATING POST-OPERATIVE PREGNANCY RATES



Fecundity (f) Following Treatment of Endometriosis



Endometriosis Fertility Index (EFI) Surgery Form

FIGURE 1

Endometriosis fertility index surgery form.

ENDOMETRIOSIS FERTILITY INDEX (EFI) SURGERY FORM

LEAST FUNCTION (LF) SCORE AT CONCLUSION OF SURGERY

Score	Description	Left	Right
4	= Normal	Fallopian Tube <input type="text"/>	<input type="text"/>
3	= Mild Dysfunction	Fimbria <input type="text"/>	<input type="text"/>
2	= Moderate Dysfunction	Ovary <input type="text"/>	<input type="text"/>
1	= Severe Dysfunction		
0	= Absent or Nonfunctional		

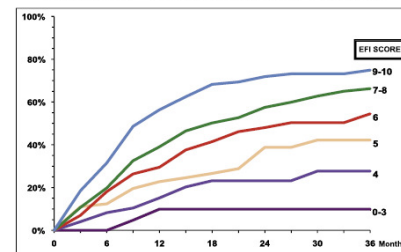
To calculate the LF score, add together the lowest score for the left side and the lowest score for the right side. If an ovary is absent on one side, the LF score is obtained by doubling the lowest score on the side with the ovary.

Lowest Score	<input type="text"/>	+	<input type="text"/>	=	<input type="text"/>
	Left		Right		LF Score

ENDOMETRIOSIS FERTILITY INDEX (EFI)

Historical Factors			Surgical Factors		
Factor	Description	Points	Factor	Description	Points
Age	If age is ≤ 35 years	2	LF Score	If LF Score = 7 to 8 (high score)	3
	If age is 36 to 39 years	1		If LF Score = 4 to 6 (moderate score)	2
	If age is ≥ 40 years	0		If LF Score = 1 to 3 (low score)	0
Years Infertile	If years infertile is ≤ 3	2	AFS Endometriosis Score	If AFS Endometriosis Lesion Score is < 16	1
	If years infertile is > 3	0		If AFS Endometriosis Lesion Score is ≥ 16	0
Prior Pregnancy	If there is a history of a prior pregnancy	1	AFS Total Score	If AFS total score is < 71	1
	If there is no history of prior pregnancy	0		If AFS total score is ≥ 71	0
Total Historical Factors			Total Surgical Factors		
EFI = TOTAL HISTORICAL FACTORS + TOTAL SURGICAL FACTORS: <input type="text"/>			<input type="text"/> + <input type="text"/> = <input type="text"/>		
			Historical Surgical EFI Score		

ESTIMATED PERCENT PREGNANT BY EFI SCORE



Adamson. Endometriosis fertility index. Fertil Steril 2010.

Adamson.
Fertil Steril
2010;
94(5):1609-15.



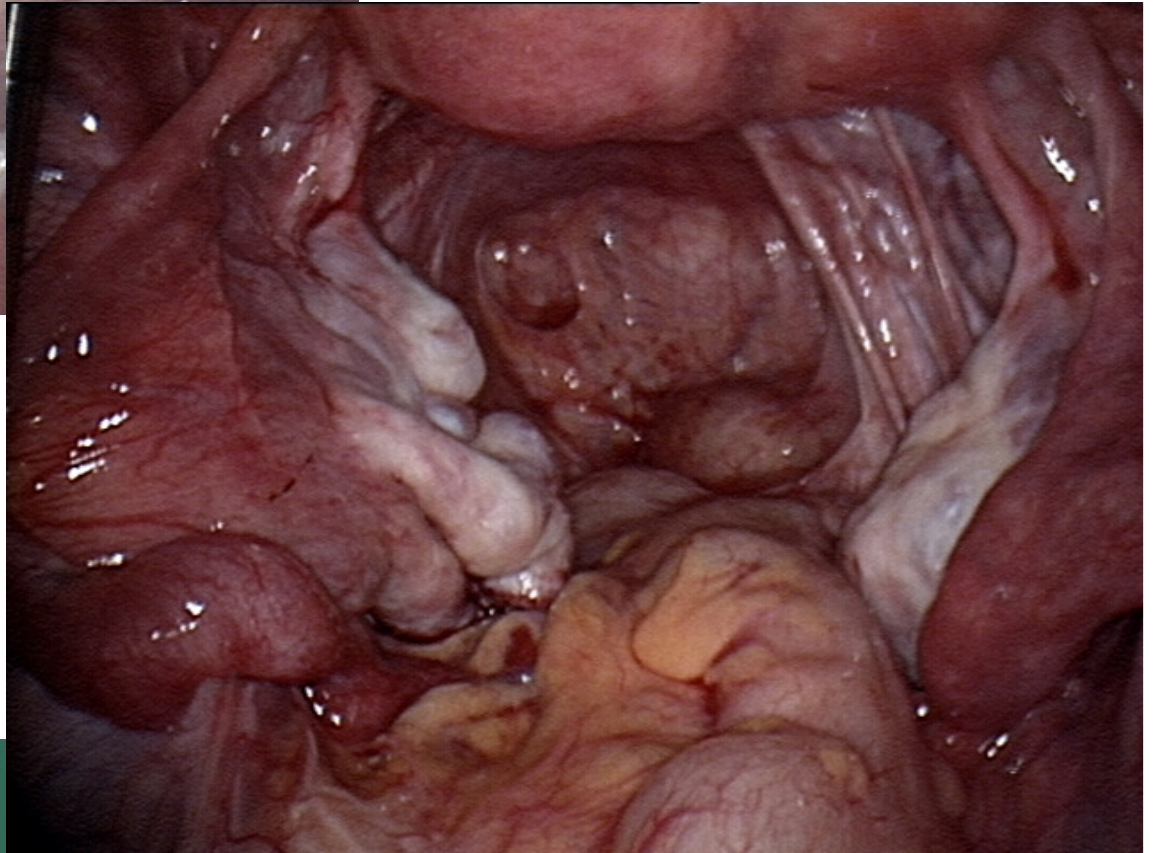
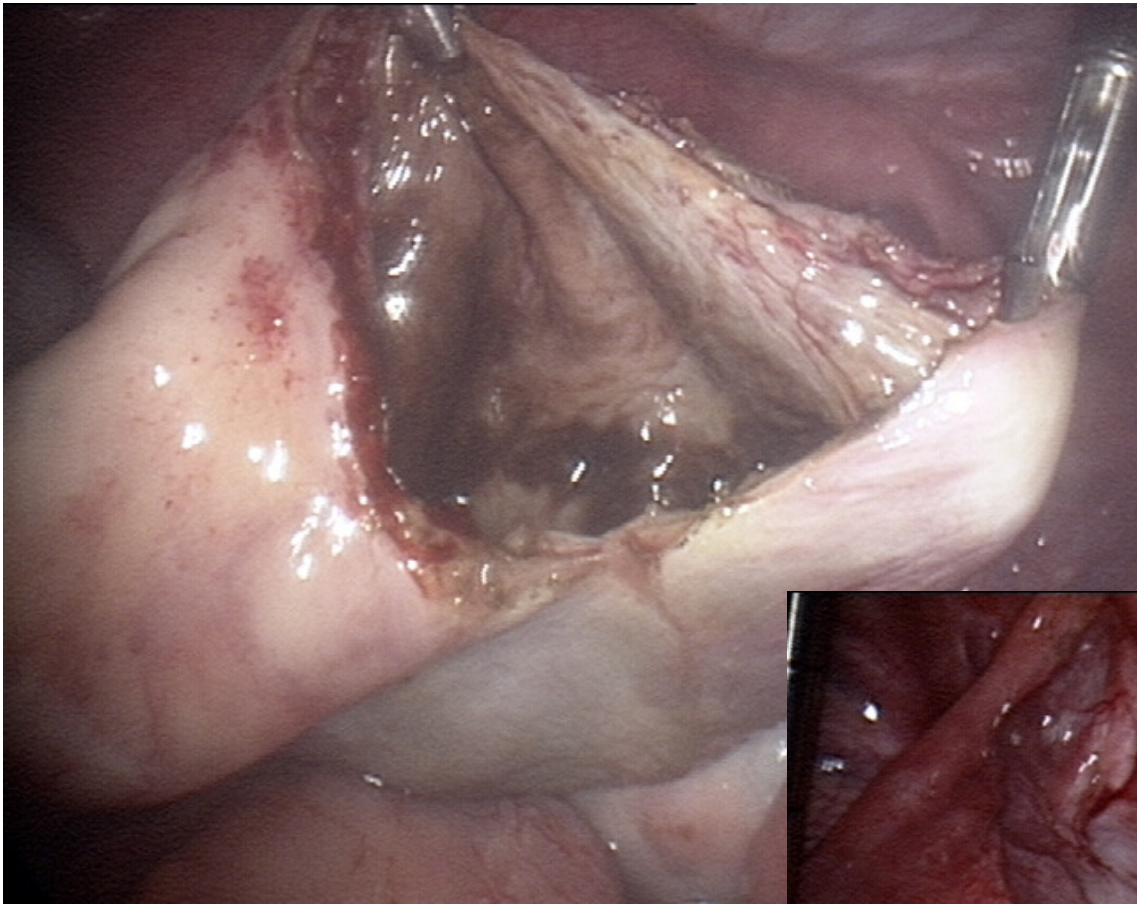
MANAGEMENT OF ENDOMETRIOMAS



Endometriectomy: Surgical Principles

- In infertile women with ovarian **endometrioma** undergoing surgery, clinicians should perform **excision** of the endometrioma capsule, instead of drainage and electrocoagulation of the endometrioma wall, to increase spontaneous pregnancy rates (Hart et al., 2008).
A
- The GDG recommends that clinicians counsel women with endometrioma regarding the risks of **reduced ovarian function** after surgery and the possible loss of the ovary. The decision to proceed with surgery should be considered carefully if the woman has had previous ovarian surgery. **GPP**

ESHRE Guideline. Hum Reprod 2014;29 (3):400-12.



Endometriomas: Results of Treatment

- Initial pain relief 60-100%
- Recurrence rates (1-5)
 - Following cyst stripping <10%
 - Following cyst drainage ~20%
 - Ultrasound recurrence 12%
- If cyst recurs, pain present 73% (5)

(1) Al-Shahrani et al. In Sutton, Jones, Adamson. 2006:151-6.

(2) Vercellini et al. Am J Obstet Gynecol. 2003;188:606-10.

(3) Montanino et al. Clin Exp obstet Gynecol. 1996;23:70-2.

(4) Yoshida et al. Gynecol obstet Invest. 2002;54:24-9.

(5) Busacca et al. Am J Obstet Gynecol. 1999;180:519-23.



Management Summary (1)

- Pelvic Pain
 - Initially analgesics, NSAID's, OC's
- Infertility with other factors normal
 - CC 100mg CD 3-7 + IUI for 3-6 cycles, depending on age
 - Other ovarian stimulation regimen
- Persistence of pain and/or infertility without other significant infertility factors
 - Laparoscopy, diagnostic & operative



Management Summary (2)

- **Surgery** well performed is **effective** treatment
 - All stages endometriosis & endometriomas
 - Infertility and Pain
- **Ovarian suppression** generally effective for **pain**
- **Repeat surgery**
 - **Limited benefit** for fertility, some for pain
- **Pre-IVF treatment ONLY**
 - **Suppression**: reasonable **extensive** disease
 - **Surgery**: ? large > **3-4 cm** endometriomas
- Endometriosis **NO effect on IVF LBR except**
 - Extensive disease +/- endometriomas

(1) Adamson et al. Am J Obstet Gynecol. 1994;171(6):1488-505.

(2) Adamson. Fertil Steril 84(6);2005:1582-4.

(3) Adamson GD. Modern Manage Endometriosis. 2006:289-305.

(4) ASRM Practice Cmttee. Fertil Steril. 2006;86(Suppl 4):S156-60.



FIGO REI COMMITTEE 2015 - 2018

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**THANK
YOU!**

