

The role of Surgery in the Management of Endometriosis and Fertility

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Disclosures

Consultant

- Allergan
- Ethicon Endosurgery
- Conmed

Introduction

- Endometriosis is defined as the presence of endometrial like tissue (glands or stroma) outside the uterus
- Prevalence estimated from 2 to 10% in women of childbearing age.
- Prevalence may be up to 50% in women with infertility
- Reduced fecundity in women with endometriosis, mechanism not well understood

D'Hooge et al. Semin Reprod Med (2003) 21:243–54

Fertility and Endometriosis

Variable appearance and symptoms of endometriosis

black, red, vesicular

POD obliteration

Marked distorted anatomy

Endometriotic cysts

Adhesions

Bowel endometriosis

What is the role of surgery for endometriosis?

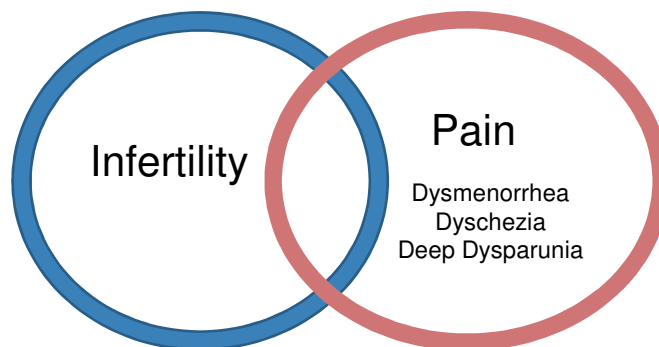
What am I thinking about the patient with Endometriosis

Objectives

- Provide a management approach to the fertility patient with suspected endometriosis
- Describe the Endometriosis Fertility Index and the role it plays in patient counselling with respect to surgery
- Understand the role of AMH the potential effects of endometriosis and surgery

Approach to Endometriosis and Fertility

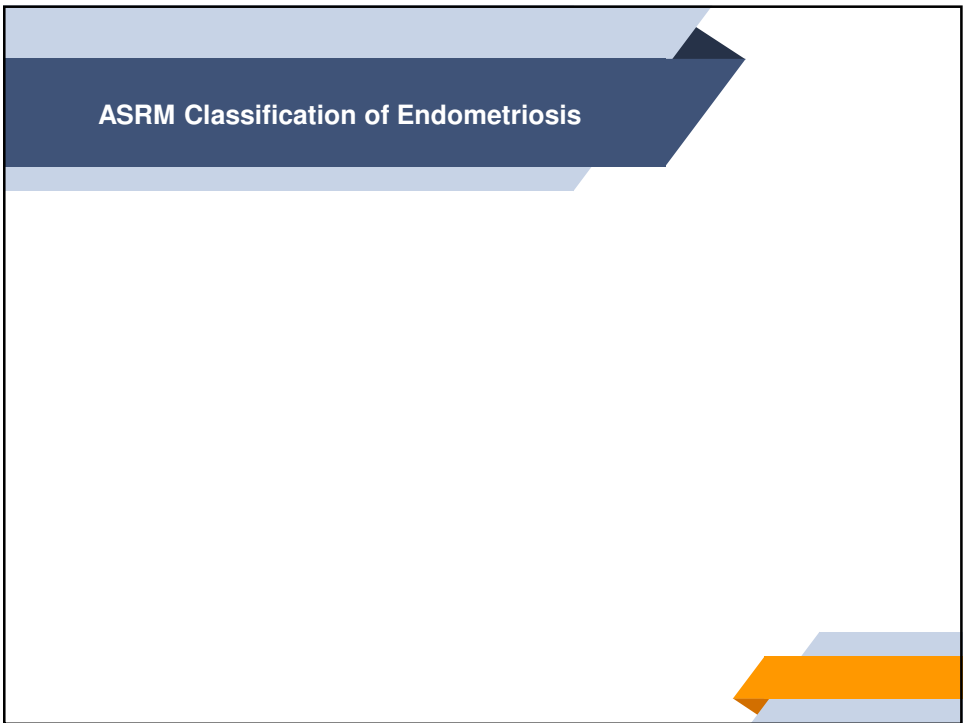
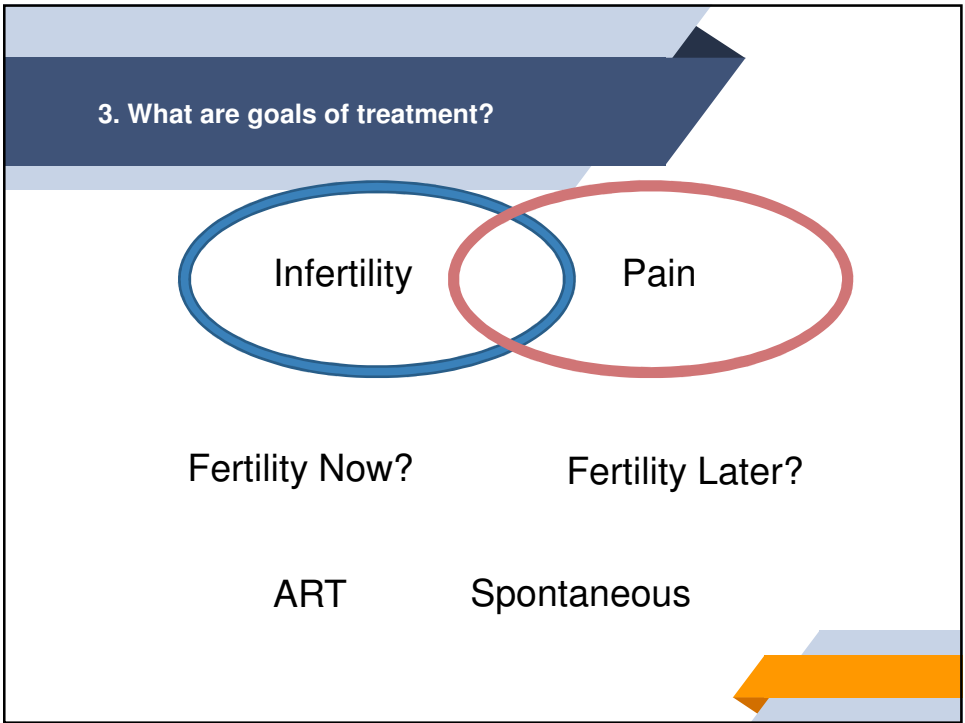
1. What are the patient's symptoms?




Approach to Endometriosis and Fertility

2. What is severity of endometriosis?

- ▷ Thorough history and physical exam
- ▷ Imaging: Endometrioma
- ▷ Quality of Life



Least Function Score Examples

A decorative graphic consisting of a dark blue arrow pointing right, overlaid on a light blue background. Below it, a light blue arrow points left, overlaid on a dark blue background. At the bottom right, a light blue arrow points right, overlaid on a dark blue background, with an orange arrow pointing left overlaid on top of it.Two red ovals are positioned horizontally in the center of the slide.

Adamson. Fertil Steril. 2010;94:1609–15. 2010

“ *Primum non nocere*

- First, do no harm

Anti Mullerian Hormone (AMH)

- Secreted by the growing follicles: primary, secondary, preantral and small antral follicles
- Secreted in circulation from time of birth, increasing at puberty, declining until menopause
- Marker of "ovarian reserve"
– egg quality and quantity

Anti Mullerian Hormone (AMH)

- Stable levels throughout the menstrual cycle
- Not affected by the use of hormones
- Very sensitive to changes in ovarian reserve with advancing age and correlates well with antral follicle count

J Clin Endocrinol Metab 97: 3146–3154, 2012


AMH and Endometriosis

- Patients with stage I/II have decreased serum AMH levels compared to those in a control group (1.26 ± 0.7 ng/mL vs. 2.02 ± 0.72 ng/mL in the control group) – Lemos et al 2008
- AMH levels are lower in patients with stage III/IV endometriosis without prior ovarian surgery than in controls (0.97 ± 0.59 ng/mL vs. 1.72 ± 0.63 ng/mL in the control group) - Pacchiarotti A et al 2014
- Unilateral endometrioma group exhibited lower AMH levels than the bilateral endometrioma - Uncu G, et al 2013



The Impact of Excision of Ovarian Endometrioma on Ovarian Reserve: A Systematic Review and Meta-Analysis

Francesca Raffi, Mostafa Metwally, and Saad Amer



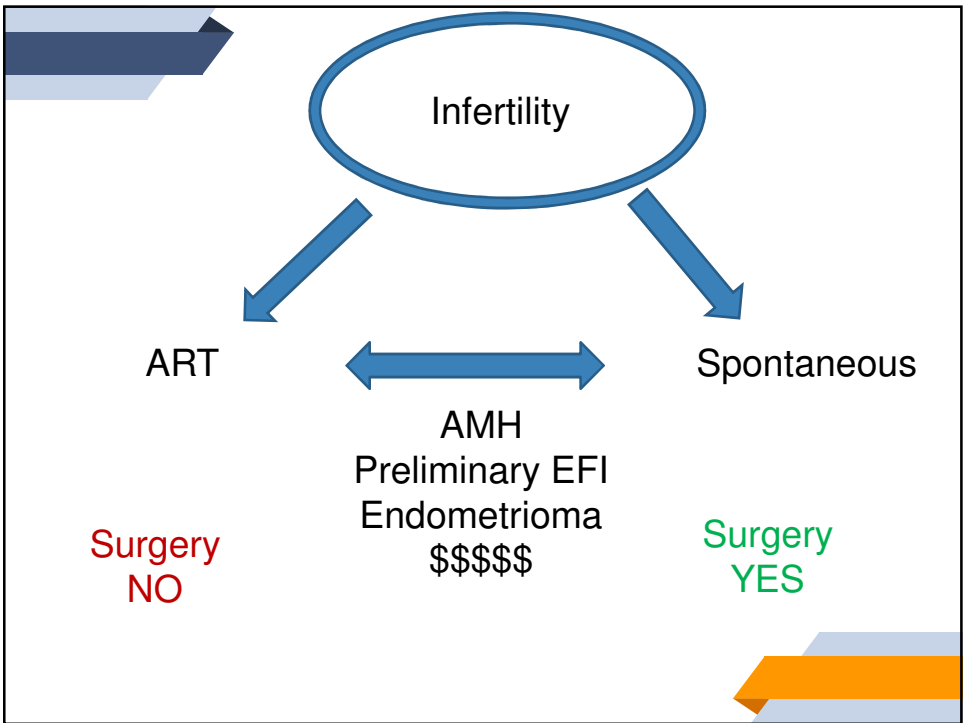
The impact on ovarian reserve of haemostasis by bipolar coagulation versus suture following surgical stripping of ovarian endometrioma: a meta-analysis

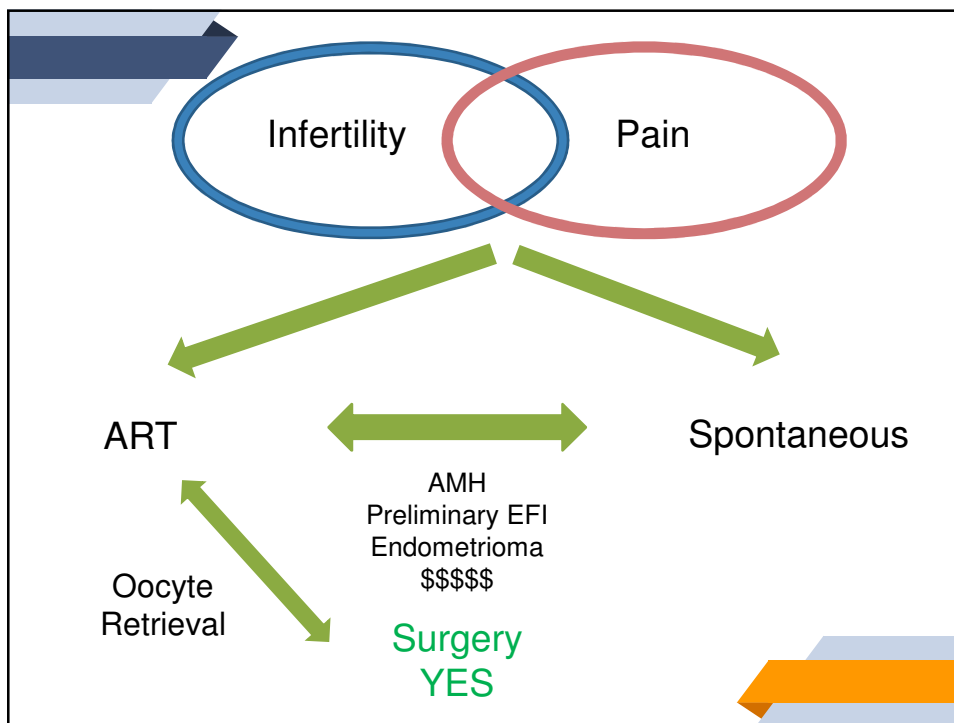
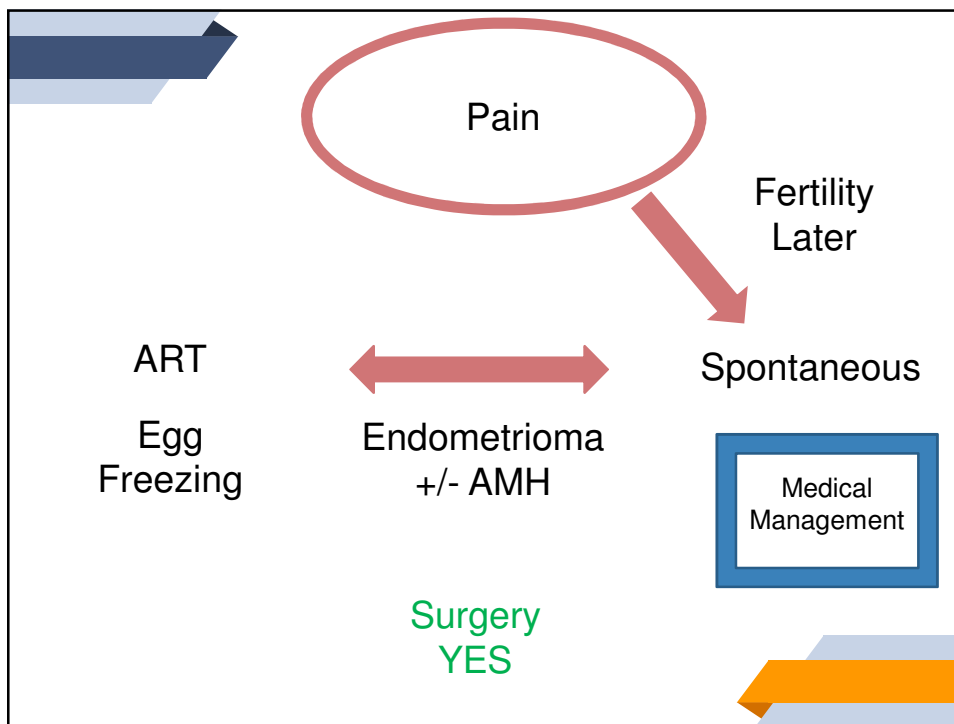
Wenjing Ding, Ming Li, Yincheng Teng *



Surgery vs Observational/ART

Fadhlaoui A, Bouquet de la Jolinière J, Feki A. Endometriosis and Infertility: How and When to Treat? *Frontiers in Surgery*. 2014;1:24..





Conclusion

- Examine patient symptoms and goals of fertility when considering surgery endometriosis.
- EFI is a validated tool that can be used to estimate chance of spontaneous conception after surgery.
- AMH is a useful marker of ovarian reserve that may be decreased with endometrioma surgery
- EFI and AMH can be used when counselling patients on management decisions

Thank You