

Modern Management of Endometriosis

Dr Kellie Tatham MBBS (Hons) FRANZCOG

Obstetrician, Gynaecologist & Fertility Specialist Brisbane
Queensland Fertility Group, Mater Mothers Private & Mater Private Hospital Brisbane

Learning Objectives

1. Identify the different management strategies for endometriosis & presumed endometriosis
2. Develop awareness of the importance of patient centred care to endometriosis management

Overview

- What is endometriosis
 - Prevalence
- Diagnosis of endometriosis
- Associations with endometriosis
- Medical management of endometriosis
 - Surgery – indications
- Fertility management of endometriosis

What is endometriosis?

- Endometriosis is defined as endometrial glands and stroma that occur outside the uterine cavity.
- Estrogen-dependent, benign, inflammation
- Symptoms – dysmenorrhea, dyspareunia, chronic pain, infertility
- Symptoms not always proportionate to disease severity

Endometriosis & Comorbid conditions

- Increased prevalence of other gynaecological pathology – fibroids, infertility, adenomyosis, PCOS
- Increased prevalence of:
 - Pelvic floor upregulation
 - Mental health disorders
 - Migraines
 - Autoimmune disease – celiac disease, SLE
 - Inflammatory disease – IBD, IBS, BPS/IC

Prevalence of Endometriosis

- 1 in 7 women
- Risk factors for endometriosis
 - Family history of endo 70%
 - Chronic pelvic pain 70%
 - Infertility 50%

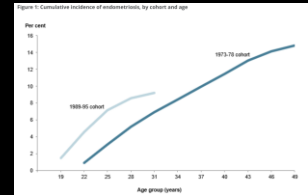
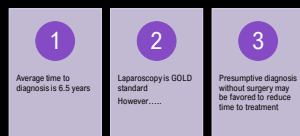


Chart: APMH. Source: Australian Longitudinal Study on Women's Health (ALSWH)

Diagnosis of endometriosis



"In general, the evidence for endometriosis diagnosis and treatment is emerging, and further research should be undertaken in a range of areas"

Barriers in designing endo treatment studies

- Accurate "diagnosis" of most endometriosis requires surgery
- Difficult to randomize and blind different hormonal treatments
- Unacceptable to do surgery with placebo excision
- Need studies with longer follow up with reproductive outcomes and pain

So, with that in mind....



- Clinical judgement
- Patient preferences
- Expert opinion
- Analogous situations
- Patient co-morbidities
- Monitor and Adjust
- Keep up to date with novel treatments

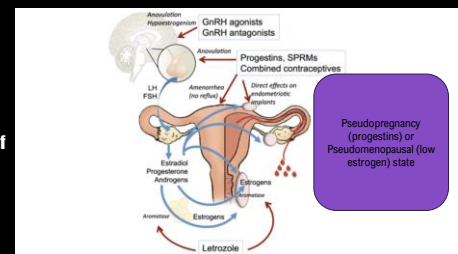
Involving the **patient as an active participant** in the decision-making process is critical in ensuring that the chosen treatment aligns with their values and preferences.

Non-Hormonal Medications – Anti-inflammatories

- Symptom relief
- Does not address the underlying pathology
- Beneficial for primary dysmenorrhea and heavy menstrual bleeding
- Avoid opioids



Therapeutic mechanisms of hormonal treatments



Reis et al 2020



Hormonal medications

- Up to 70% effective
- No permanent negative effect on fertility, may help to preserve fertility
- Issues:
 - Recurrent symptoms on cessation
 - Side effects
 - Not suitable for those desiring pregnancy in the short term

Hormonal medications

Class	Type	Cons	Pros	Cost
Continual hormonal contraception	PIU Vaginal ring	Mood, sore breasts, nausea, thrombosis, BMD, dyspareunia	Less breakthrough bleeding Can choose - continuous or cyclic	\$5-30/month
Progestin Only Pills	Tablets Pillpack (norgestrel) Single (discontinues) Vaginal (discontinues)	Breakthrough bleeding Non contraceptive, bloating, weight gain, mood Minimal	Fewer contraindications	\$32/month \$35/month \$135/month
	Depo-Provera Progestin Implant Implanon Arm Implant over 5 yrs			\$20 plus doctor appt every 3 months
	Hormonal IUD Mirena 5yrs Kyleena 5 years			
GnRH agonist	Zoladex implant Syntar nasal spray	Hot flashes	Suppression of bleeding	\$30/month in usually proven ends for up to 6 months
GnRH antagonist	Ryeqo One tablet daily	BMD after 2yrs	Contraceptive	Approved by PBAC; currently \$135/month
Danazol	Androgenic steroid Tablet for 6-8 months	Androgenic side effects		\$40/month No longer available in Aust
Letrozole	Daily tablet	Menopausal symptoms & reduced BMD needs add back therapy Needs contraception - induces ovulation & is a teratogen		\$31/month

No hormonal treatment has been demonstrated to be superior



Indications for surgery

- Tablet once daily
- Contraceptive (>4wks)
- Recommended by PBAC but currently \$135/month
- BMD <1% loss at 2yrs

GnRH antagonist (suppress endo growth) + Estradiol (reduce menopausal SEs)
+ Progesterone (contraceptive)

Indications for surgery

01
Not responding to medical therapy

02
Contraindication to medical therapy

03
Infertility with desire to avoid IVF
• no other indication for IVF
• lowest risk for fertility loss successful than IVF

Laparoscopic excision of endometriosis

- Surgical goals:
 - Reduce pain and/or improve fertility!!!!
 - Concurrent diagnosis & complete excision of all endometriosis
- Important to document clearly the stage of endometriosis, extent of removal & tubal patency



Before surgery, a good surgeon....

Doesn't just treat the pelvis

- Addresses all contributing causes of pelvic pain and either treats those first or concomitantly

Gives informed surgical consent

- Discusses surgical risks and recovery
- Provides realistic expectations of surgical outcomes
- Discusses recurrence & medications to reduce this
- Discusses effect on fertility & may advise fert pres first

Considers their surgical skill set

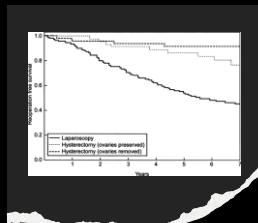
- Advises patient that first surgery is the best, and that it is best to avoid multiple surgeries
- Notes that there is no real role for "diagnostic laparoscopy", should be seeing & treating at same operation
- Requests good imaging to look for signs of severe endo & ensure correct team is present at surgery
- Refer on if required

Hysterectomy? Ovaries out?

Realistic expectations

Surgical options

1. Lap endo
2. Lap hysterectomy
3. Hysterectomy & removal of tubes & ovaries
 - Lower chance of reoperation in women above 40
 - Sometimes need to remove if ovaries to clear disease
 - BUT Removal of ovaries → menopause symptoms, increased osteoporosis & cardiovascular disease without HRT post op
 - If ovaries are to remain advise discussing and normalize "cyclical" symptoms that will continue to occur post-op



Reoperation at 7 years (Shakiba et al 2008)

- Lap endo – 55%
- Lap hysterectomy 33%
- Lap hysterectomy & ovaries out 8%

Endometriosis surgery for infertility

- Based on patient's age, desired number of children, prior surgery and severity of disease
- Minimal to mild endo (usually not seen on scan/exam) – surgical excision improves chances of natural conception
- Moderate to severe endometriosis – surgery may reduce ovarian reserve, IVF is most effective

Jane 24yo

- Primary unexplained infertility
- Would like 3 children
- Normal exam & ultrasound
- Hoping to avoid IVF



Pregnant naturally 2 months post op
Has since delivered baby Evie then naturally
conceived baby Remi 4 months postpartum!

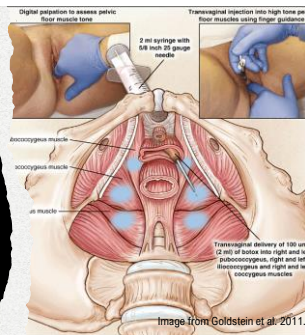
Repeat laparoscopy

- Rec
- At r
- Incr
- Sugg
- multi
- Consi
- Note t
- proce

This highlights the importance of education, realistic expectations and holistic, multidisciplinary care from the beginning of the patient journey

Pelvic Floor Botox

- Indication: persistent pelvic pain and signs of PF upregulation despite physio input
- May reduce pain, dyspareunia and dyschezia



Take Home Messages

- Continue to educate girls & women
- There is no "one size fits all" treatment
- Surgery - Appropriately planned, appropriately timed, appropriate type
- Multidisciplinary treatment of pelvic pain
- There is a need for ongoing good quality research

References

1. Australian clinical practice guideline for the diagnosis and management of endometriosis (2021). RANZCOG, Melbourne, Australia.
2. Reis, F *et al.* 2020. Progesterone receptor ligands for the treatment of endometriosis: the mechanisms behind therapeutic success and failure. *Human Reproduction Update*, Vol.26, No.4, pp. 563-585.
3. Ribeiro, J *et al.* 2020. The effects and effectiveness of laparoscopic excision of endometriosis: a prospective study with 2-5 year follow-up. *European Society of Human Reproduction and Embryology*, vol.18, no. 9, pp. 1922-1927.
4. Vercellotti P *et al.* 2009. The effect of surgery for symptomatic endometriosis: the other side of the story. *Hum Reprod Update*, 15, pp. 177-188.
5. Vercellotti P *et al.* 2009. Repetitive surgery for recurrent symptomatic endometriosis: What to do? *Eur J Obstet Gynecol Reprod Biol*, 146, pp. 5-21.
6. Benavides *et al.* The outcomes of repeat surgery for recurrent symptomatic endometriosis. *Current Opinion in Obstetrics & Gynecology*, Vol. 22, no. 4, pp. 320-325.
7. Meisner *et al.* Effectiveness of Botulinum toxin for treatment of Symptomatic Pelvic Floor Myofascial Pain in Women: A Systematic Review and Meta-analysis. *Female Pelvic Medicine & Reconstructive Surgery* 9:27, no 1, pp. 152-160.
8. Kragman *et al.* 2023. Botulinum Toxin for the Management of Pelvic Floor Tension Myalgia and Persistent Pelvic Pain: A Systematic Review and Meta-analysis. *Obstetrics & Gynecology*, Publish ahead of print on 5 Oct 2023.
9. Goldstein *et al.* 2011. Intravaginal Injection of Botulinum Toxin for the Treatment of Hypertonic Pelvic Floor Muscle Dysfunction & Vestibulodynia. *J Sex Med*, n 8, 1261-1269.