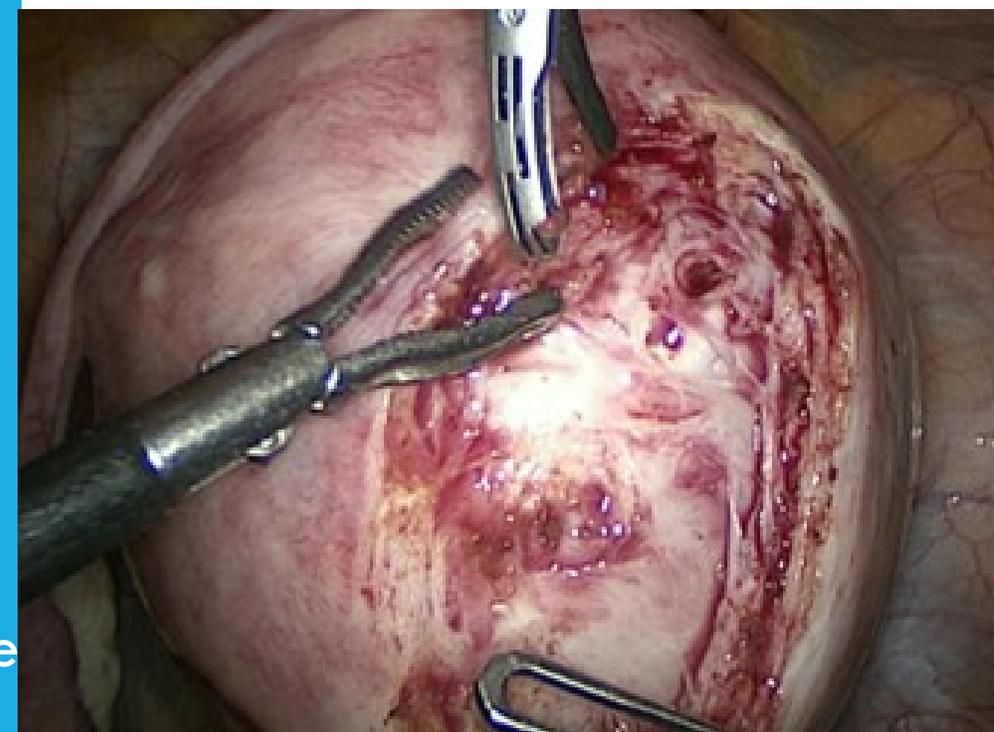
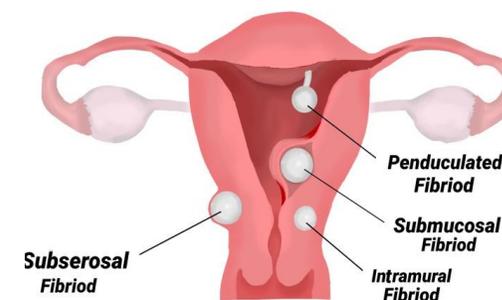


FIBROIDS & MANAGEMENT OF FIBROID RELATED SYMPTOMS



Mr C. Gnanachandran MBBS, MRCOG, MSc.

Consultant Gynaecologist & Honorary Lecturer.

MBBS, MRCOG, MSc(ultrasound)

Gynaecology scans & minimally invasive surgeries,

(Including endometriosis and fibroids and early gynaecology cancers)

Gynaecology lead, Lead for gynaecology rapid access care

FIBROIDS MANAGEMENT AND CASE REVIEWS

Fibroids -overview

- management

▪ Medical:

- Control heavy bleeding
- Avoid anaemia
- Decrease pain
- Near menopause patient controlling symptoms
- Case reviews

▪ surgical:

- fertility
- Hysteroscopic resection
- Myomectomy
- Hysterectomy
- Better cure but risks and benefits.

❖ Case reviews

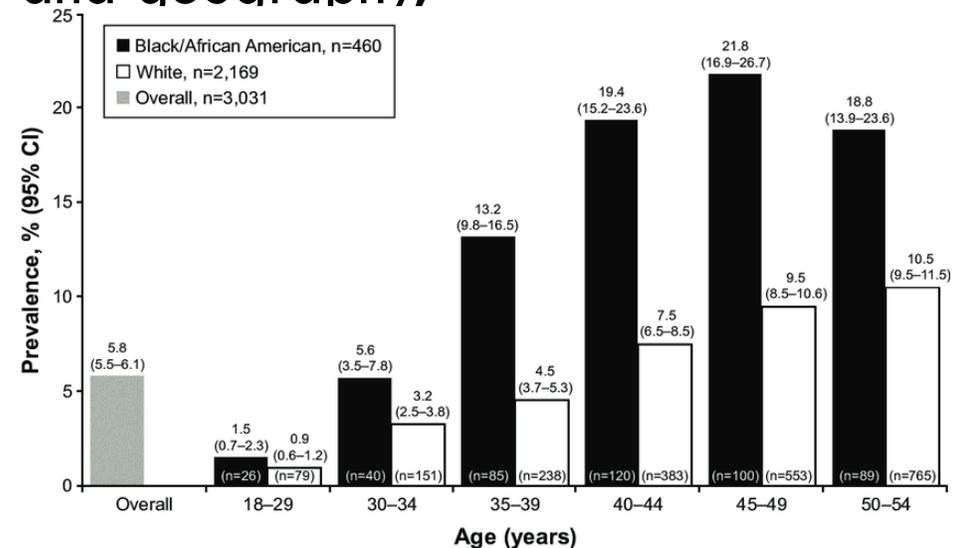
FIBROIDS - COMMON PROBLEM

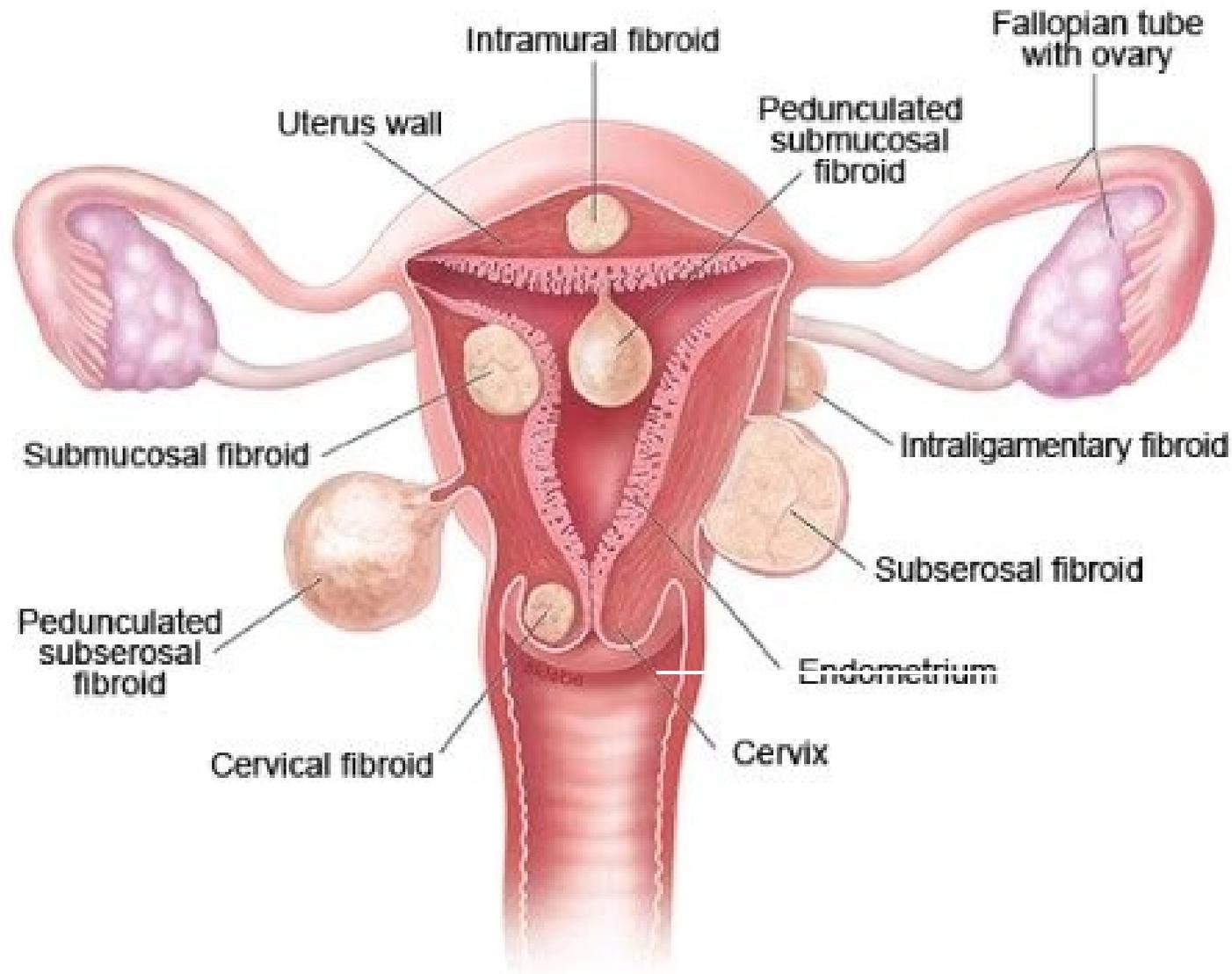
Uterine fibroids, also called **leiomyomas** or myomas, are growths that appear in the uterus. They're made of uterine muscle together “like a stone”. They're noncancerous and extremely common.

Genetically predisposed.

Oestrogen and progesterone stimulate the growth.

Fibroids affect the quality of life (QoL) of a significant proportion of women, are dependent on their ethnicity and geography,





Anatomy and Fibroid locations

Size and location matters

FIBROID

- SYMPTOMS

DEPENDS ON LOCATION
, SIZE AND AGE, BMI
ASSOCIATED FACTORS

- Pain-full periods
 - (30 s fibroid, 40 obesity + multiparous- adenomyosis)
- Excessive or uncomfortable menstrual bleeding.
- Frequent urination.
- Subfertility (30s)
- Miscarriages(what to do, if it is too small < 4cm)
- Low back pain.
- Chronic pain
- Bloating/ Increased abdominal enlargement.
- Bleeding in between menstrual cycles.
- Bloating or a lower abdominal fullness sensation.
- Pain during sex.
- Constipation.
- Chronic vaginal discharge.
- Inability to totally empty your bladder or urinate.

FIBROIDS

INVESTIGATIONS + DIAGNOSIS

- ✓ **USS: TAS and TAS (Ultrasonography):** non-invasive imaging
Cheap . Easy. The experts are the better.
- **3D TVS**, better in young fertility patients.
- ❖ **Magnetic resonance imaging (MRI):** non radiation, expensive.
NHs waiting time. detailed images . Ideal before myomectomy
or UAE
- **Computed tomography (CT):** Radiation, Ideally when a
malignancy needs to be excluded.
- **HyCoSy, Hysterosalpingography:** In this imaging procedure,
a tiny catheter is inserted transvaginal, and saline is
administered into the uterine cavity via the catheter. With
the help of the additional fluid, your uterus can be seen
more clearly than during a typical ultrasound. To get a
clear image of the uterus, a contrast substance must first
be injected. This is more frequently applied to those who
are also having infertility testing.
- **HSG & Sonohysterography:**
- **Hysteroscopy:**
- **Laparoscopy:**

FIBROIDS MANAGEMENT - MEDICAL - SURGICAL

INDIVIDUALISED

Treatment of fibroids differ

- should be based on evidence based

But practical matters

- so management is based on
- Age
- Symptoms
- Location
- Fertility desire
- NHS waiting time/ funding
- BMI
- Fitness for surgery

FIBROIDS

MANAGEMENT

- MEDICAL
- SURGICAL

Medical non hormonal:

A) Tranexamic acid (antifibrinolytic agent)

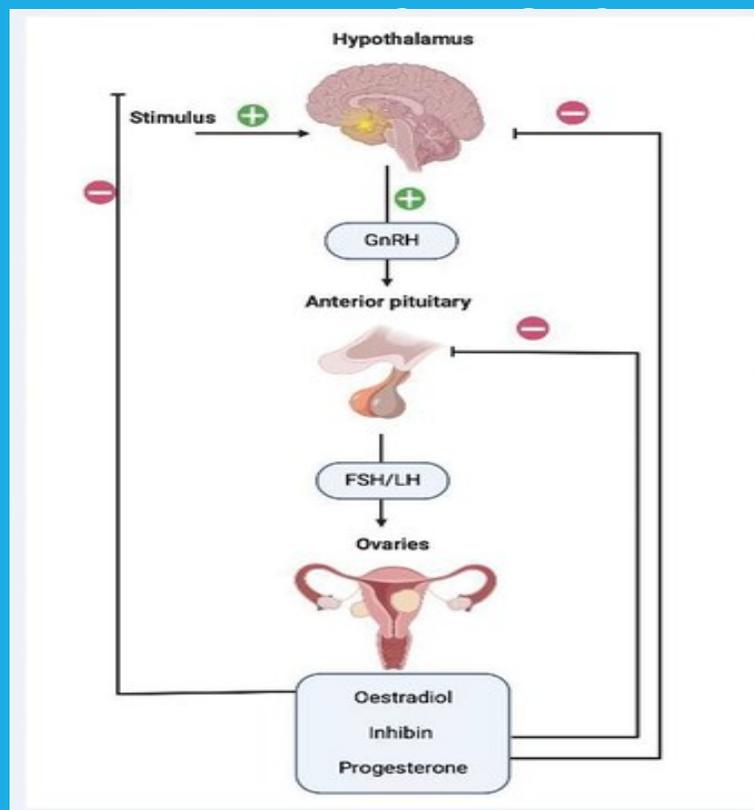
- reduces HMB but no effect on fibroid size.

B) NSAIDs Reduces HMB and pain , temporary

Hormonal all are contraceptive ...

- Oral GnRH antagonist tablets – will be the first choice for small(4cm) fibroids for HMB?
- ✓ Levonorgestrel-releasing intrauterine system (Eg: Mirena),
 - ✓ Reduces HMB, pain when <4cm,
 - ✓ a greater extent limited benefits Oral contraceptives
COC/POP (estrogen/progestin) Reduces HMB but does not inhibit fibroid growth
- Oral or injectable progestins (DMPA) Reduces HMB , growth??/?+ side effects(weight gain)
- GNRH agonists antagonist, Receptor blockades

FIBROIDS MANAGEMENT - MEDICAL GnRH AGONISTS GnRH AND OTHERS



GnRH agonists and antagonists- very effective but menopause side effects, need HRT in long term

- ❖ GnRH agonists activating GnRH receptors
 - ❖ 1) Decapeptyl SR (Triptorelin) – 3Mg every 4 weeks or 11.25mg every 3 months
 - ❖ Prostag (Luprorelin) – 3.75 mg every 4 weeks or 11.25mg every 3 months
 - ❖ Zoladex (Goserelin) – 3.6 mg every 4 weeks or 10.8mg every 3 months

- ✓ Reduces HMB, significantly
- reduces fibroid size,
- hemoglobin levels;
- Pretreatment to reduce fibroid volume before surgery recommended in combination with low-dose estrogen/progestin add-back therapy to mitigate menopausal side effects
- ? How long
- Risk of prolapse fibroid expulsion

FIBROIDS MANAGEMENT

- MEDICAL
- GNRH
ANTAGONISTS
- SURGICAL

GnRH antagonists (The inhibition of gonadotropin release is quick and constant without a 'flare-up' effect,)

Oral GnRH antagonists (Elagolix, Relugolix, Linzagolix) represent a new alternative for the medical management of hormone-dependent gynaecological diseases such as uterine fibroids or endometriosis

Reduces HMB and fibroid volume; improves haemoglobin levels; recommended in combination with low-dose estrogen/progestin add-back therapy to mitigate adverse effects

UK availability : **Ryeqo**: Relugolix Combination Therapy (Relugolix CT) contains 40mg Relugolix + 1mg estradiol (as hemihydrate) + 0.5mg norethisterone acetate.

Link: [2 Information about relugolix–estradiol–norethisterone acetate | Relugolix–estradiol–norethisterone acetate for treating moderate to severe symptoms of uterine fibroids | Guidance | NICE](#)



Key secondary endpoints in LIBERTY 1, LIBERTY 2 and LIBERTY 3

FIBROIDS MANAGEMENT - MEDICAL - GNRH ANTAGONISTS - SURGICAL

	LIBERTY 1		LIBERTY 2		LIBERTY 3	
	Placebo (n=127)	RYEQO 24 weeks (n=128)	Placebo (n=129)	RYEQO 24 weeks (n=125)	Placebo → RYEQO (n=164)	RYEQO 52 weeks (n=163)
Achievement of amenorrhoea ^a (no bleeding for last 35 days of treatment) ^{5,6,9}	6% n=7/127	52% ^{b,c} n=67/128 p<0.0001	3% n=4/129	50% ^{b,d} n=63/125 p<0.0001	58% (95% CI 50%–66%) n=95/164	71% (95% CI 63%–77%) n=115/163
Improvement of anaemia ^{e,f,5,6,10}	22% n=5/23	50% ^{b,g} n=15/30 p<0.04	5% n=2/37	61% ^{b,h} n=19/31 p<0.0001	42% (95% CI 26%–59%) n=16/38	59% (95% CI 42%–74%) n=23/39
Pain (NRS) ^{5,11}	10% n=7/69	43% ^{b,i} n=25/58 p<0.0001	17% n=14/82	47% ^{b,j} n=32/68 p<0.0001	-	-
Uterine volume ^{5,6,12}	2% n=127 mean +/- SD: 3.0	-13% ^b n=128 mean +/- SD: 3.1 p<0.001	-2% n=129 mean +/- SD: 3.4	-14% ^b n=125 mean +/- SD: 3.4 p=0.008	-7% n=164 mean +/- SD: 3.2	-14% n=163 mean +/- SD: 2.8
Primary uterine fibroid volume (largest UF) ^{5,6,12}	-0.3% n=127 mean +/- SD: 5.4	-12% n=128 mean +/- SD: 5.6 p=0.09 (NS)	-7% n=129 mean +/- SD: 5.9	-17% n=125 mean +/- SD: 5.9 p=0.21 (NS)	-18% n=164 mean +/- SD: 5.1	-18% n=163 mean +/- SD: 6.0
Health-Related Quality of Life ^{k,4,13}	13 n=127 mean +/- SD: 2.7	38 n=128 mean +/- SD: 2.8	14 n=129 mean +/- SD: 2.5	38 n=125 mean +/- SD: 2.5	39 n=164 mean +/- SD: 2.6	40 n=163 mean +/- SD: 2.5

Link: [2 Information about relugolix–estradiol–norethisterone acetate | Relugolix–estradiol–norethisterone acetate for treating moderate to severe symptoms of uterine fibroids | Guidance | NICE](#)

FIBROIDS MANAGEMENT

- MEDICAL
- GNRH
ANTAGONISTS
- SURGICAL

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FIBROIDS MANAGEMENT

- MEDICAL
- GNRH
ANTAGONISTS
- SURGICAL

Most of the studies have a 2-year evaluation

- All effective in a reduction in pain, anaemia, and volume reduction.

What we need is long-term data on BMD and the recurrence of symptoms

Among oral GnRH antagonists, relugolix, elagolix, and linzagolix were safe in patients with uterine fibroids. These drugs, alone and in combination with E2/NETA (estradiol/norethindrone acetate), showed significantly better efficacy than placebo in improving bleeding, discomfort, uterine/leiomyoma sizes, and quality of life in premenopausal patients with symptomatic uterine fibroids. However, more randomized, double-blind, multicentre clinical trials are needed to confirm these results and to see long-term benefits.

Niaz, R., Saeed, M., Khan, H., Ali, M.A., Irshad, A., Faiz, M., Irshad, A., Fatima, F., Tunio, S.A. and Aiman, W., 2022. Efficacy and safety of oral GnRh antagonists in patients with uterine fibroids: a systematic review. *Journal of Obstetrics and Gynaecology Canada*.

Dosage in the marketing authorisation

- 2.2 The dosage schedule is available in the [summary of product characteristics for relugolix–estradiol–norethisterone acetate](#).
-

Price

- 2.3 The list price of relugolix–estradiol–norethisterone acetate is £72.00 for a 28-pack of 40 mg/1 mg/0.5 mg tablets (excluding VAT; BNF online, accessed April 2022). The annual treatment cost is £939.21. Costs may vary in different settings because of negotiated procurement discounts.

FIBROIDS MANAGEMENT

- **MEDICAL**
- **GNRH
ANTAGONISTS**
- **SURGICAL**

Selective progesterone receptor modulators (ESMYA) Reduce HMB, pain, and fibroid volume and increase hemoglobin levels; recommendations were suspended in 2020 due to safety concerns; long-term safety is under investigation

Aromatase inhibitors Limited evidence to demonstrate reductions in HMB or fibroid size

FIBROIDS
MANAGEMENT
- MEDICAL
- SURGICAL
- MYOMECTOMY
HYSTEROSCOPIC
RESECTION

UAE
HYSTERECTOMY

Best for patients planning for children, if possible to perform

- Hysteroscopic resection for – submucosal fibroids(

preferably 3D before

Open/ Laparoscopy for intramural fibroids (and sub serosal fibroids)

For laparoscopy- preferably scan and MRI before

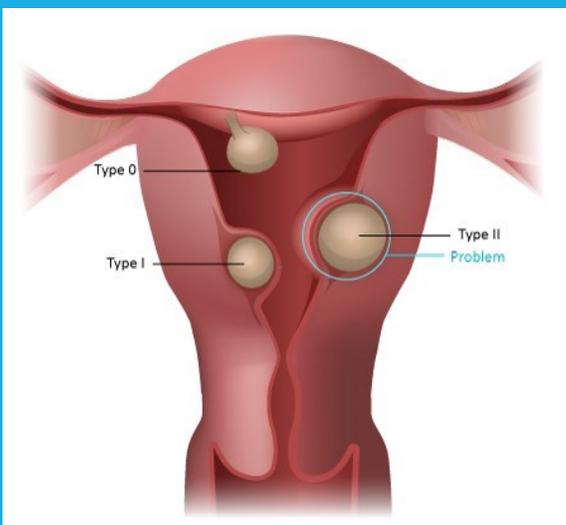
FIBROIDS

MANAGEMENT

- MEDICAL
- SURGICAL
- MYOMECTOMY
- HYSTEROscopic

UAE

HYSTERECTOMY



Hysteroscopic resection for –
submucosal

Type 0: mechanical (myosure/
Truclear)/ resection (TCRF)

Type 1 and 2: Resection (TCRF)
before IVF/ fertility treatments

Followed by short-term GNRH,
very effective.

FIBROIDS
MANAGEMENT
- MEDICAL
- SURGICAL
-MYOMECTOMY-
RESECTION:
TCRF/
MECHANICAL
MORCELLATION.

UAE
HYSTERECTOMY

Best for patients planning for children, if possible to perform

Ideal 3 D scan((? MRI)

Mechanical: - Type 0 to stop bleeding, in PMB on HRT/ IMB

- Hysteroscopic resection for – submucosal fibroids type 0/1/2
- before IVF
- In recurrent miscarriage
- Bleeding / HMB/ IMB if no other fibroids/ adenomyosis
- follow up ... 3 D/ 2D.

FIBROIDS

MANAGEMENT

- MEDICAL
- SURGICAL

-MYOMECTOMY

- OPEN/
- LAPAROSCOPIC

UAE

HYSTERECTOMY

Myomectomy, well established fantastic surgery

-Reducing fibroid-related pain, HMB, dyspareunia, and bladder symptoms.

- helps increase spontaneous as well as IVF success rate

- reduces the rate of miscarriage.

- For fibroids more than 4 cm

- Risk: recurrence,

- not helpful if have concurrent adenomyosis

- Benefits/risk/complications short and long term.

- [Myomectomy Benefits, Risks, Long-Term Outcomes, and Effects on Fertility and Pregnancy Outcomes: A Literature Review | Journal of Gynecologic Surgery \(liebertpub.com\)](#)

- Gnanachandran, C., Penketh, R., Banzal, R. and Athauda, P., 2023. Myomectomy Benefits, Risks, Long-Term Outcomes, and Effects on Fertility and Pregnancy Outcomes: A Literature Review. *Journal of Gynecologic Surgery*.

FIBROIDS MANAGEMENT

- MEDICAL
- SURGICAL

-MYOMECTOMY

- OPEN/
- LAPAROSCOPIC

UAE HYSTERECTOMY

Myomectomy, well established fantastic surgery

- Reducing fibroid-related pain, HMB, dyspareunia, and bladder symptoms.
- also helps increase spontaneous as well as IVF success rate
- reduces the rate of miscarriage.
- For fibroids more than 4 cm
- Risk: recurrence
- not helpful if have concurrent adenomyosis
- Benefits / risk/complications short and long term



Content Highlights

- Intraoperative Benefits Using Advanced Sealing Devices During Vaginal Hysterectomy
- Sedation-associated Fibrosis Associated with Quality of Abdominally Invasive Benign Gynecologic Surgery and Impact of the COVID-19 Pandemic
- COVID-19 Risk: Consider for Same Day Discharge After Minimally Invasive Gynecology
- Transcatheterial Arterial Embolization: A Systematic Review of the Literature for the Management of Uterine Fibroids and Myomectomy

Myomectomy Benefits, Risks, Long-Term Outcomes, and Effects on Fertility and...

liebertpub.com • 2 min read

FIBROIDS
MANAGEMENT
- MEDICAL
- SURGICAL
- MYOMECTOMY
- OPEN/
LAPAROSCOPIC
UAE
HYSTERECTOMY

Pregnancy, Fibroids, and Myomectomy

Fibroids cause, less chance of conception, miscarriage and preterm labour and problems in delivery

The serious adverse effects on conception or pregnancy following myomectomy are:

1. Uterine-cavity adhesions decreasing fertility and impairing The outcome of in-vitro fertilization (IVF)
2. Miscarriage
3. Torsion and degeneration presenting with abdominal pain
4. Preterm labour
5. Uterine-scar dehiscence or uterine rupture during pregnancy or labour
6. Placental accreta when the placenta adheres to the previous myomectomy scar.

Spontaneous pregnancy following myomectomy is the ideal outcome in a young woman, but it depends on age, ovarian reserve, race, and previous pregnancy outcomes

FIBROIDS MANAGEMENT - MEDICAL - SURGICAL - MYOMECTOMY

UAE HYSTERECTOMY

Myomectomy / open and laparoscopic :

[Myomectomy Benefits, Risks, Long-Term Outcomes, and Effects on Fertility and Pregnancy Outcomes: A Literature Review](#)

Published Online: 26 Jul 2023 <https://doi.org/10.1089/gyn.2022.0127>

Myomectomy Benefits, Risks, Long-Term Outcomes, and Effects on Fertility and Pregnancy Outcomes: A Literature Review

Chellappah Gnanachandran, Richard Penketh, Rupali Banzal, and Piyanga Athauda

Published Online: 26 Jul 2023 | <https://doi.org/10.1089/gyn.2022.0127>

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Abstract

Objective: Abdominal myomectomy is the mainstay for women with intramural fibroids who want to conceive. Informed choice, discussion on alternatives, and consent for surgery are essential prior to the procedure. Women with fibroids need to understand the potential long-term complications and future implications, including the effects of fibroids or myomectomy

s. This article offers evidence-based information for informing women about the myomectomy and other treatments



Figures References Related Details

Information
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To cite this article:
Chellappah Gnanachandran, Richard Penketh, Rupali Banzal, and Piyanga Athauda.
Myomectomy Benefits, Risks, Long-Term Outcomes, and Effects on Fertility and Pregnancy Outcomes: A Literature Review.

FIBROIDS MANAGEMENT - MEDICAL - SURGICAL - MYOMECTOMY

UAE HYSTERECTOMY

UAE is another option available to patients with fibroids, and some women prefer this option as it avoids a general anaesthetic and preserves the uterus.

This procedure, however, is associated with a risk of persistent pelvic pain, as well as a small risk of needing surgical intervention in the immediate post-procedure time. There is a risk of emergency hysterectomy after UAE as a result of fibroid necrosis, which results in heavy bleeding and severe acute pain.

In the longer term, further surgical intervention is required in 10%–20% of cases.

not for women planning pregnancy/ subfertility

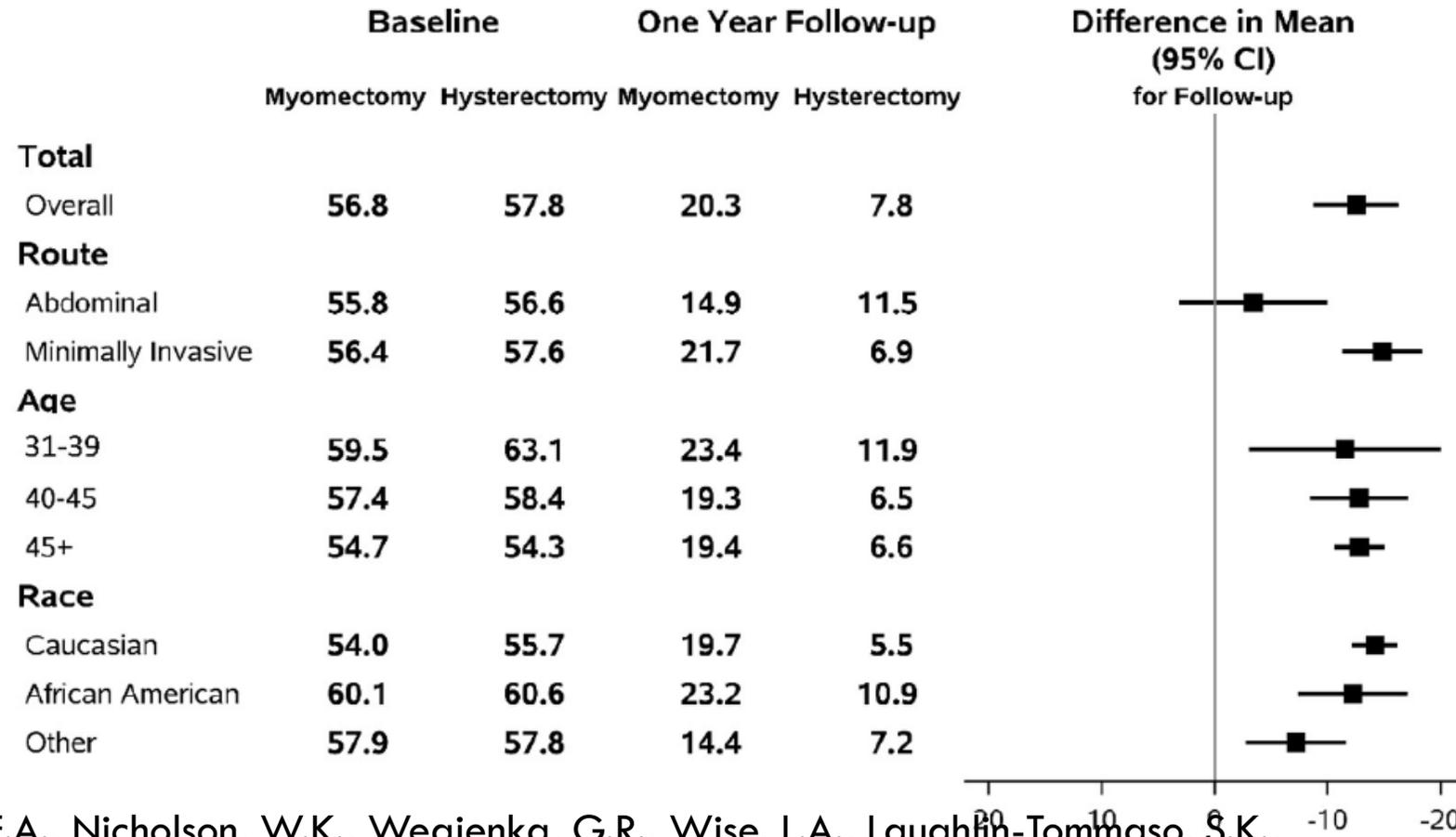
Laparoscopic/ open hysterectomy Quality of life compared to myomectomy

FIBROIDS
MANAGEMENT
 - MEDICAL
 - SURGICAL
 - MYOMECTOMY

UAE
 ULTRASONIC (CERVICAL/
 LAPAROSCOPIC)
HYSTERECTOMY

B

Propensity Adjusted Mean at Baseline and One Year Follow-up Symptom Severity



Wallace, K., Zhang, S., Thomas, L., Stewart, E.A., Nicholson, W.K., Wegienka, G.R., Wise, L.A., Laughlin-Tommaso, S.K., Diamond, M.P., Marsh, E.E. and Jacoby, V.L., 2020. Comparative effectiveness of hysterectomy versus myomectomy on one-year health-related quality of life in women with uterine fibroids. *Fertility and sterility*, 113(3), pp.618-626.

FIBROIDS

MANAGEMENT

- MEDICAL

- SURGICAL

-MYOMECTOMY

UAE

ULTRASONIC (CERVICAL/
LAPAROSCOPIC)

HYSTERECTOMY

Laparoscopic/ open
Total/ subtotal

[Mr Chellappah Gnanachandran: obstetrician -
gynaecologist in Northampton \(topdoctors.co.uk\)](#)

[patient-information-total-laparoscopic-hysterectomy-
for-mr-gnanachandran-s-patients \(3\).pdf \(ngh.nhs.uk\)](#)

FIBROIDS

MANAGEMENT

- MEDICAL

- SURGICAL

-MYOMECTOMY

UAE

HYSTERECTOMY

**SUMMARY OF
MANAGEMENT**

Common practice:

Mirena/ IUS if HMB and fibroids < 4 cm.

If the fibroid < 3-4 cm Medical management unless patient completed family and concurrent HMB+/- pain with adenomyosis

IF Fibroids > 4 cm – myomectomy, if < 40 and desire for family

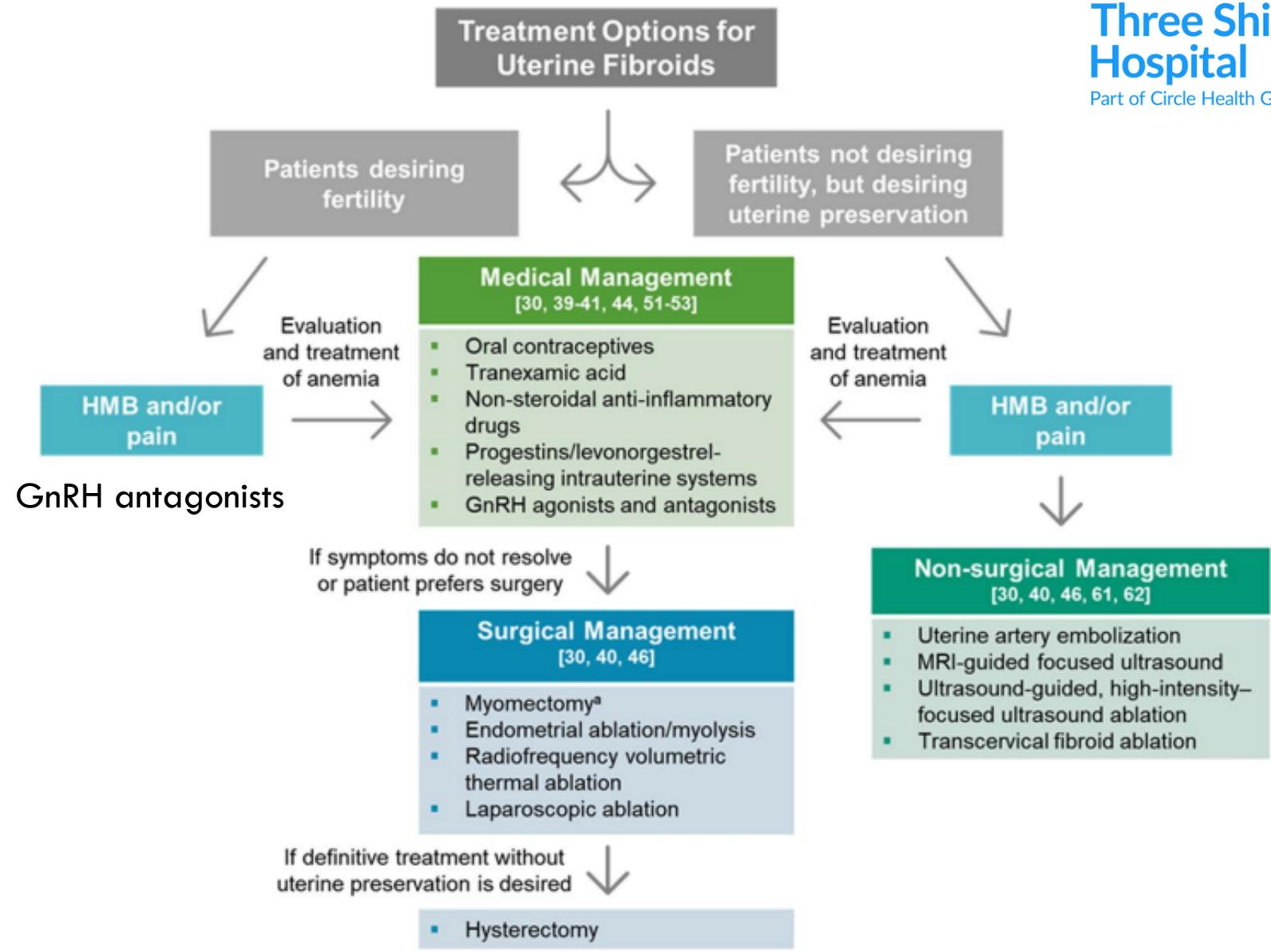
If fibroids > 4 cm and completed family, hysterectomy

GNRH antagonist oral < 5 cm for HMB.

GNRH agonist injections -6 12 months for Fibroids+ adenomyosis / waiting for surgery

UAE/ For patient completed family, solitary/ Few fibroids, does not want hysterectomy/ not fit for hysterectomy

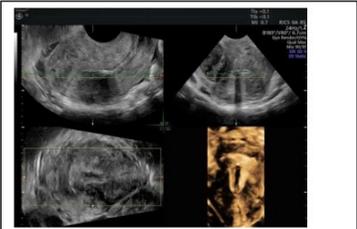
Fig. 1 Treatment options for uterine fibroids. Evidence-based treatment decisions should be tailored according to the individual clinical scenario (e.g., size and location of fibroids, patient age, symptoms, desire to preserve fertility, access to therapy) and clinician judgment [41]. ^aMay be performed hysteroscopically, laparoscopically, abdominally, or with robotic assistance. GnRH, gonadotropin-releasing hormone; HMB, heavy menstrual bleeding; MRI, magnetic resonance imaging



Patient information

Treatment of problems due to fibroids in women with heavy periods, pain and subfertility

Fibroids: How to treat problems caused by fibroids?



[file:///intranet.ngh.nhs.uk/Users/UserData/Userdata-E-K/Gnanachandran/Downloads/patient-information-for-fibroid-problems-and-treatment%20\(4\).pdf](file:///intranet.ngh.nhs.uk/Users/UserData/Userdata-E-K/Gnanachandran/Downloads/patient-information-for-fibroid-problems-and-treatment%20(4).pdf)

Thank you Questions?

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MBBS, MRCOG, MSc(ultrasound)

Gynaecology scans and minimally invasive surgeries,
including endometriosis and fibroids

Gynaecology lead

(Lead for gynaecology rapid access care)