



# A-Z of Fibroids

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# FIBROIDS

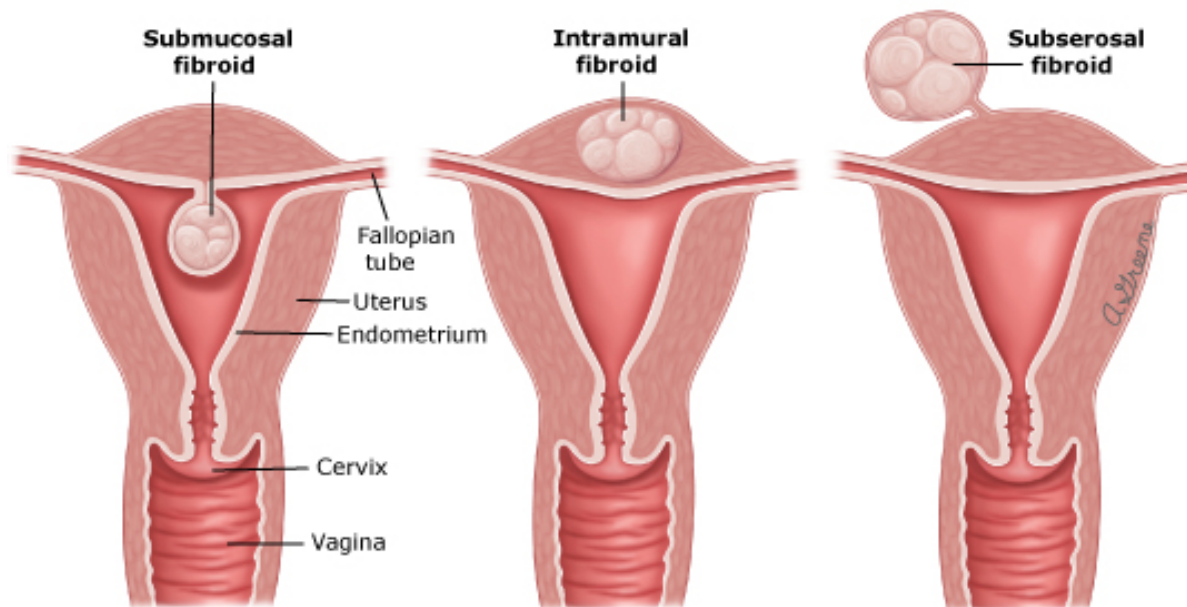
- Uterine leiomyomas (fibroids) are the most common pelvic tumors in women
- They are benign monoclonal tumors arising from the smooth muscle cells of the myometrium.
- The pathogenesis of leiomyomas is not well understood.
  - Genetic predisposition
  - environmental factors
  - steroid hormones
  - growth factors /Angiogenesis
  - Aromatase

# RISK FACTORS

- Race
- Menstrual history & parity
- Hormonal contraception/steroid hormones
- Ovulation induction agents
- Obesity
- Diet/caffeine /alcohol
- Smoking
- Hereditary
- Others

# TERMINOLOGY

- Intramural myomas (FIGO type 3,4,5)
- Submucosal myomas (FIGO type 0,1,2)
- Subserosal myomas (FIGO type 6,7)
- Cervical myomas (FIGO type 8)



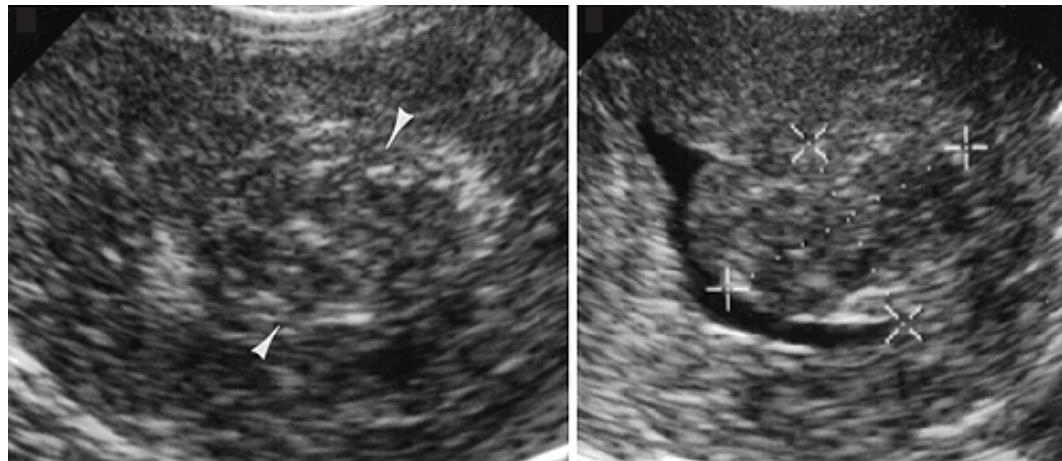
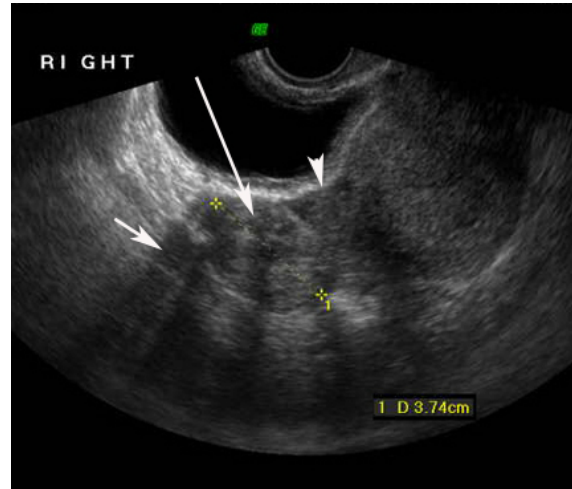
# CLINICAL MANIFESTATION

- Heavy or prolonged menstrual bleeding
- Pelvic pressure and pain
- Reproductive dysfunction
- Prolapsed fibroid
- Rare symptoms of fibroid tumors that appear to be related to ectopic hormone production include:
  - Polycythemia from autonomous production of erythropoietin
  - Hypercalcemia from autonomous production of PTHrP

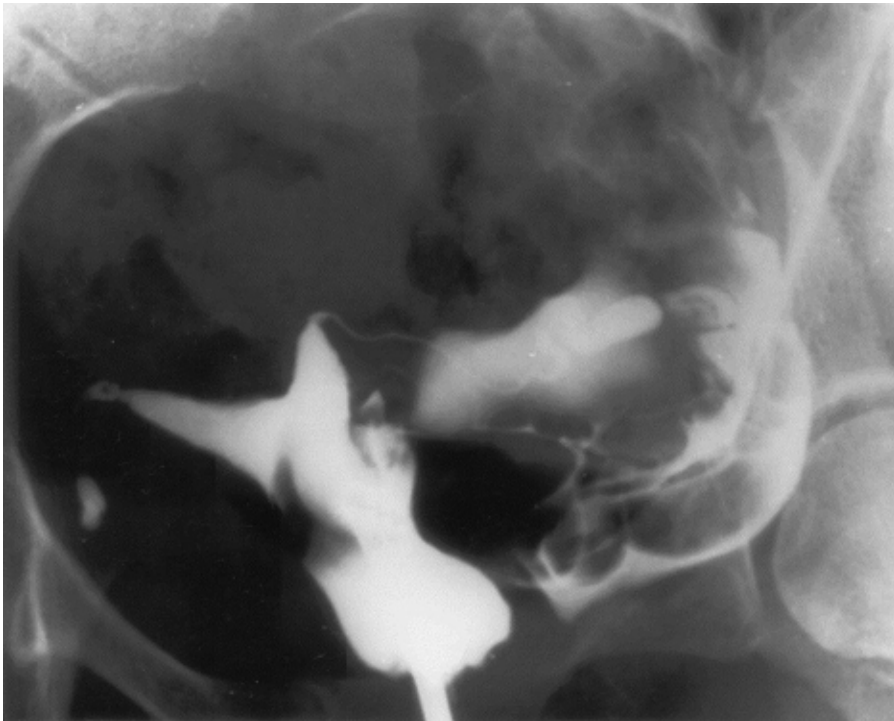
# DIAGNOSIS

- Clinical
- USG
- Saline infusion sonography
- MRI
- HSG

# Ultrasound and Saline Infusion Sonography



# HSG and MRI





# DIFFERENTIAL DIAGNOSIS

- Uterine adenomyosis or adenomyoma
- Leiomyoma variant
- Adenomatoid tumors
- Pregnancy
- Hematometra
- Uterine sarcoma
- Uterine carcinosarcoma
- Endometrial carcinoma
- Metastatic disease

# VARIANTS

- BENIGN HISTOLOGIC VARIANTS OF LEIOMYOMAS
  - Atypical leiomyomas
  - Mitotically active leiomyomas
  - Cellular leiomyomas
  - STUMP

# BENIGN UTERINE VARIANTS WITH EXTRAUTERINE DISEASE

- Leiomyomatosis peritonealis disseminata
- Intravenous leiomyomatosis.
- Benign metastasizing leiomyomas
- Hereditary leiomyomatosis and renal cell carcinoma syndrome
- Cowden syndrome
- Vulvar and esophageal leiomyomatosis

## Management of fibroids

- Asymptomatic
- Symptomatic

# TREATMENT

- Type and severity of symptoms
- Size of the myoma(s)
- Location of the myoma(s)
- Patient age
- Reproductive plans

# TREATMENT

- EXPECTANT
- MEDICAL
- MINIMALLY INVASIVE THERAPY
- SURGICAL

# EXPECTANT MANAGEMENT

*There are no high quality data regarding follow-up of fibroids in patients who are asymptomatic or who decline medical or surgical treatment. However, given data that fibroids can shrink substantially and that there is substantial regression during the postpartum period, expectant management appears to be a reasonable option for some women*

# MEDICAL THERAPY

*“A remarkable lack of randomized trial data demonstrating the effectiveness of medical therapies in the management of women with symptomatic fibroids”*



# MEDICAL THERAPY

- Hormonal Therapies
  - OC-Pill & Progestational Agents
  - LNG(IUS)
  - Progestin Implants
  - GnRH Agonists
- Antifibrinolytic agents
- NSAIDs
- Aromatase Inhibitors.
- Antiprogestins & Progesteron receptor modulators.

- Revolutionary drug to shrink fibroids could spare women hysterectomies



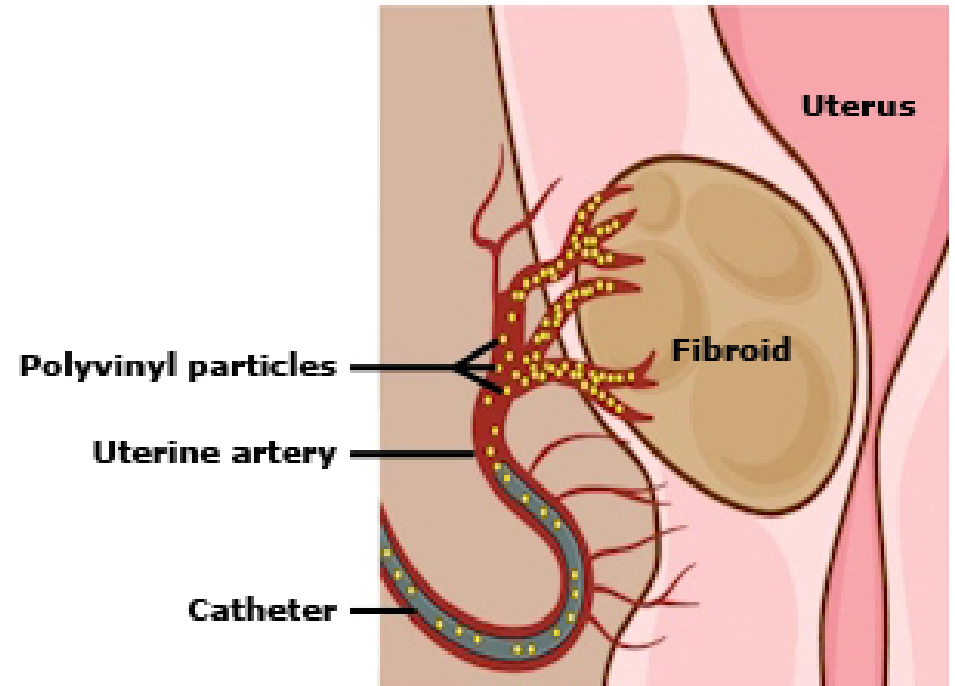
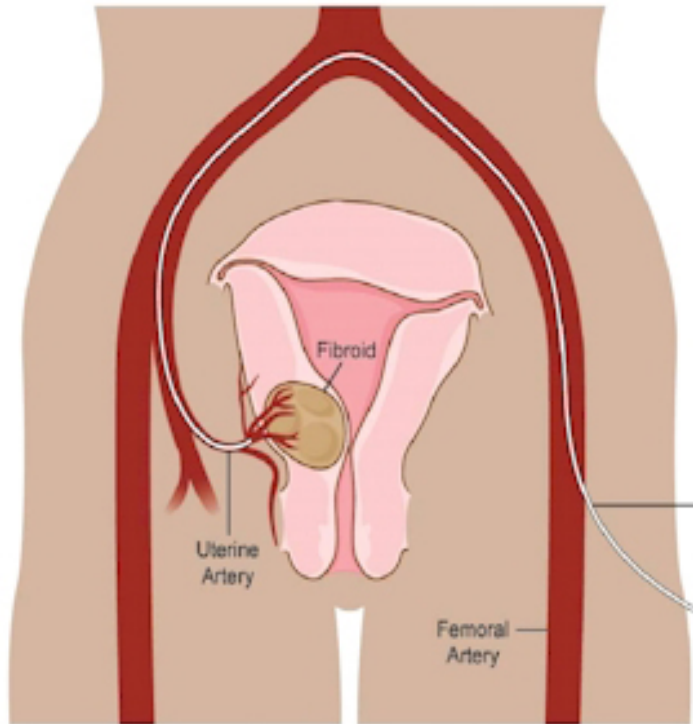
# MEDICAL THERAPY (Future Directions)

- Pharmaceutical intervention aimed at specific genes.
- Regulation of Growth factor Pathways (Interferon)

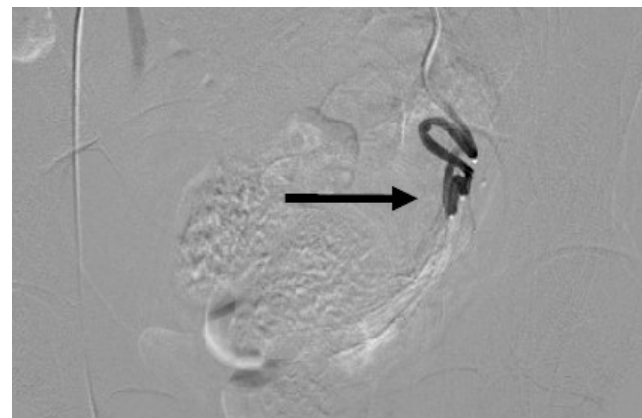
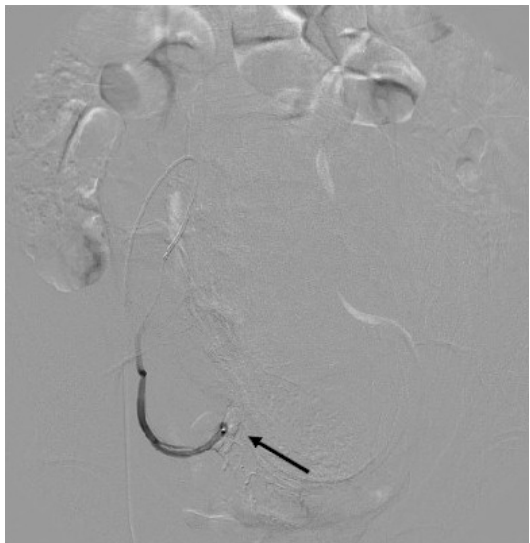
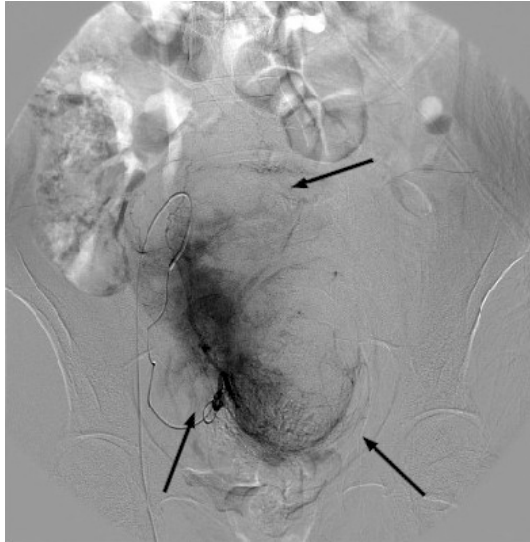
# MINIMALLY INVASIVE

- Uterine artery embolization.
- MRgFUS

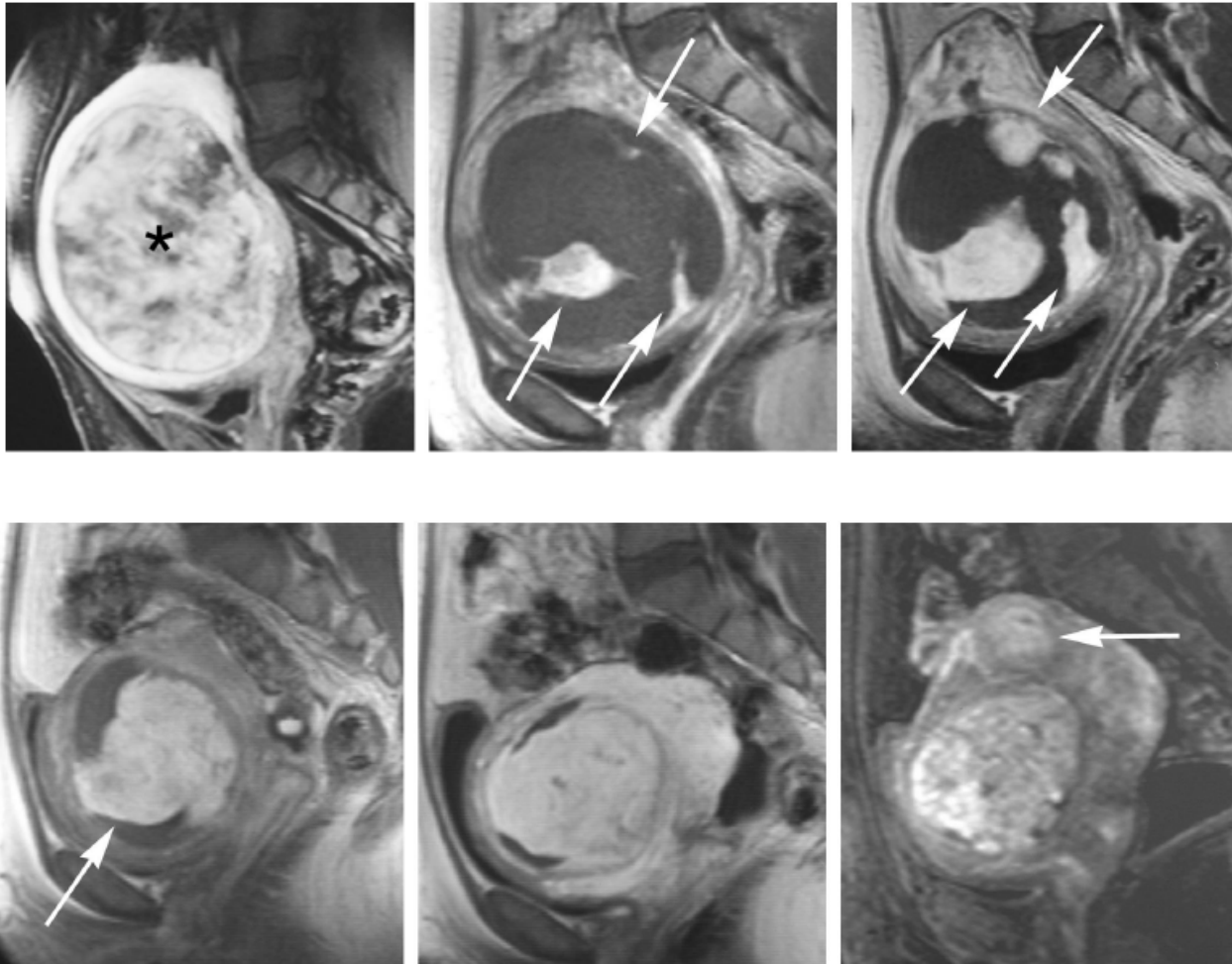
# UAE



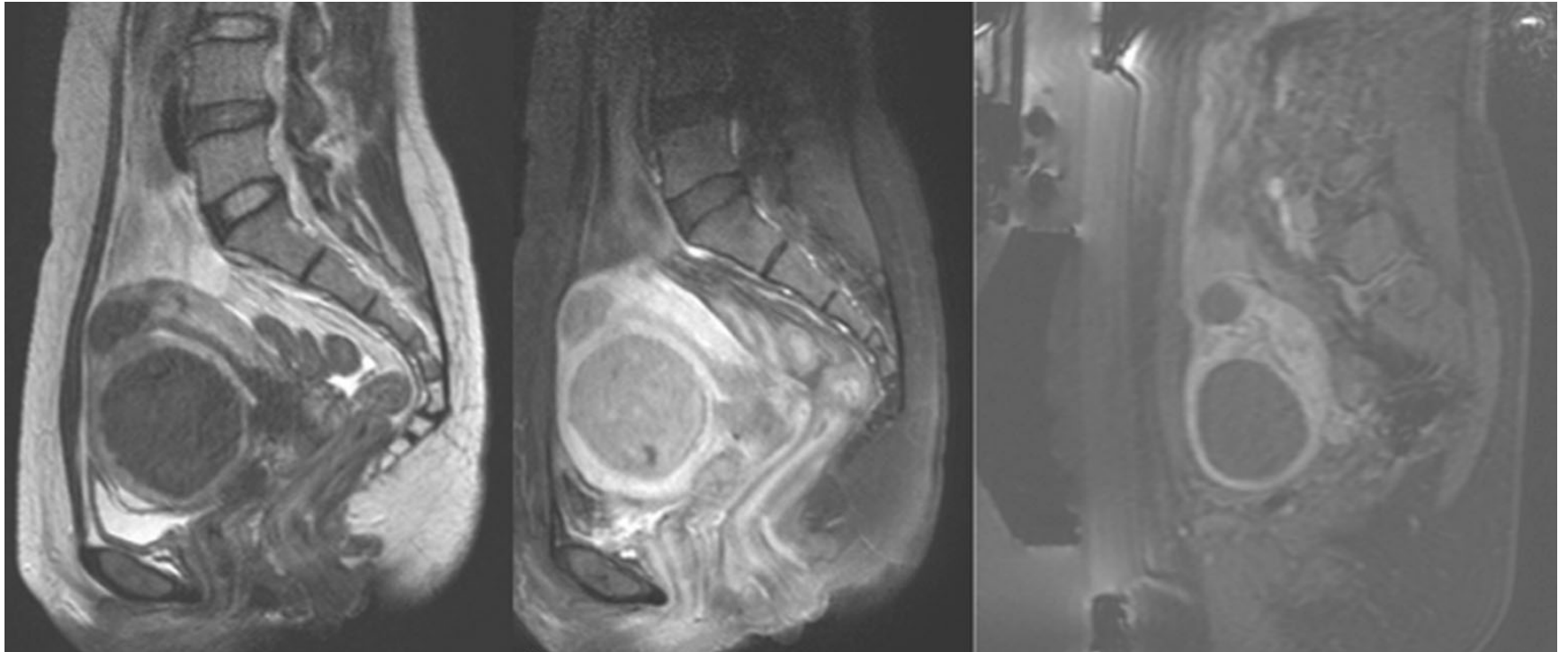
# UAE



# MRI after UAE



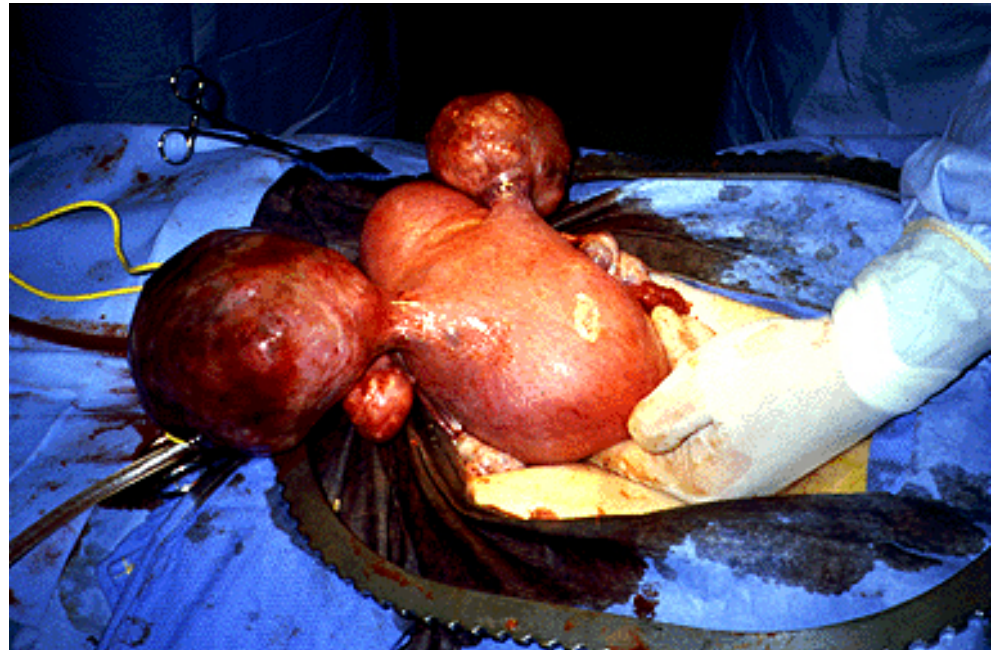
# MRgUS



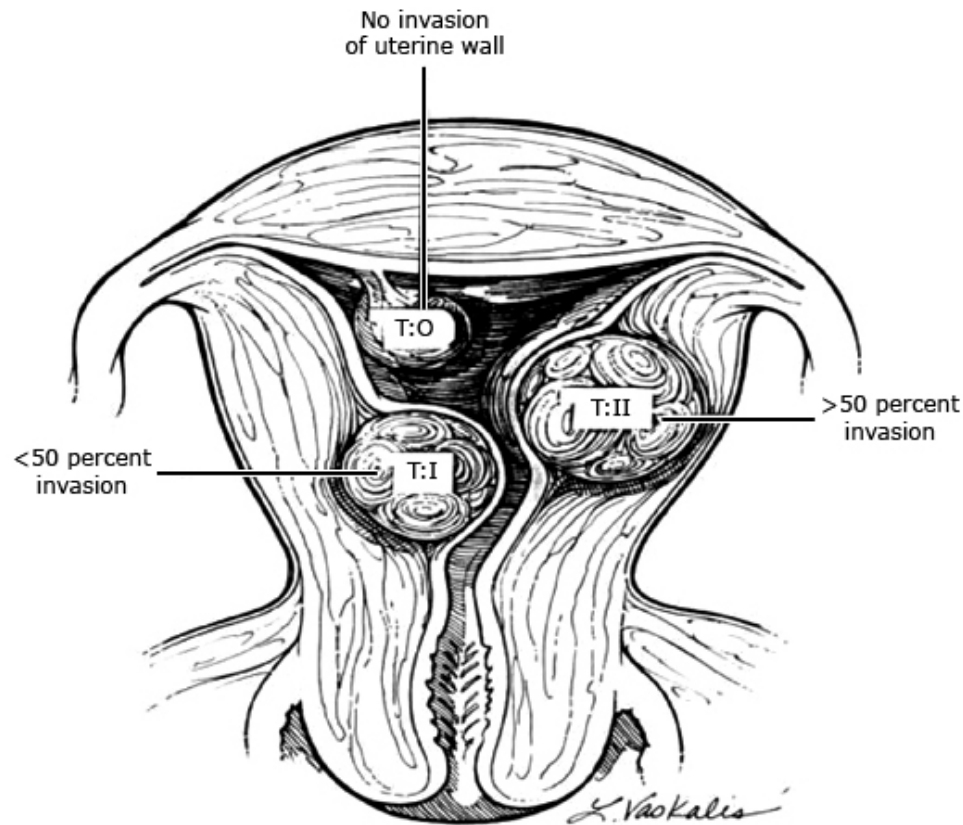


# SURGERY.

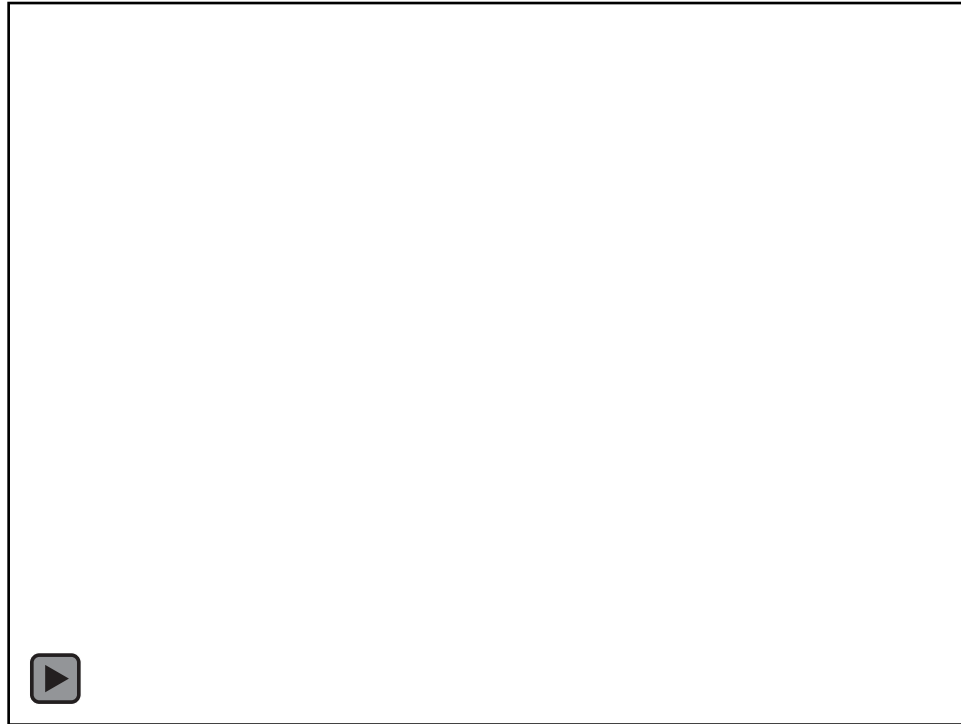
- Hysterectomy
- Myomectomy
- Hysteroscopic Resection
- Endometrial ablation



# The European hysteroscopic classification of submucous leiomyomas



# MINIMALLY INVASIVE



# Therapeutic Guidelines

*There are few guidelines that synthesize all fibroid treatments in a framework to guide clinicians*

- UK RCOG NICE only for specific procedures
- Canada (SOGC)
- ACOG Only alternative to surgery, contraceptive use
- France

# FAQ-FIBROIDS

My Aunt has problems with fibroids  
Does it run in families ? Can I do any thing to prevent them?

Woman with fibroids - Can I take the pill?

Use of low dose oral contraceptives (OCs) does not cause fibroids to grow, therefore administration of these drugs is not contraindicated in women with fibroids



Post menopausal woman with asymptomatic fibroid. Can I  
take HRT? Will it Grow?

## Case History

62 years old woman, known fibroids and was started on HRT by GP.

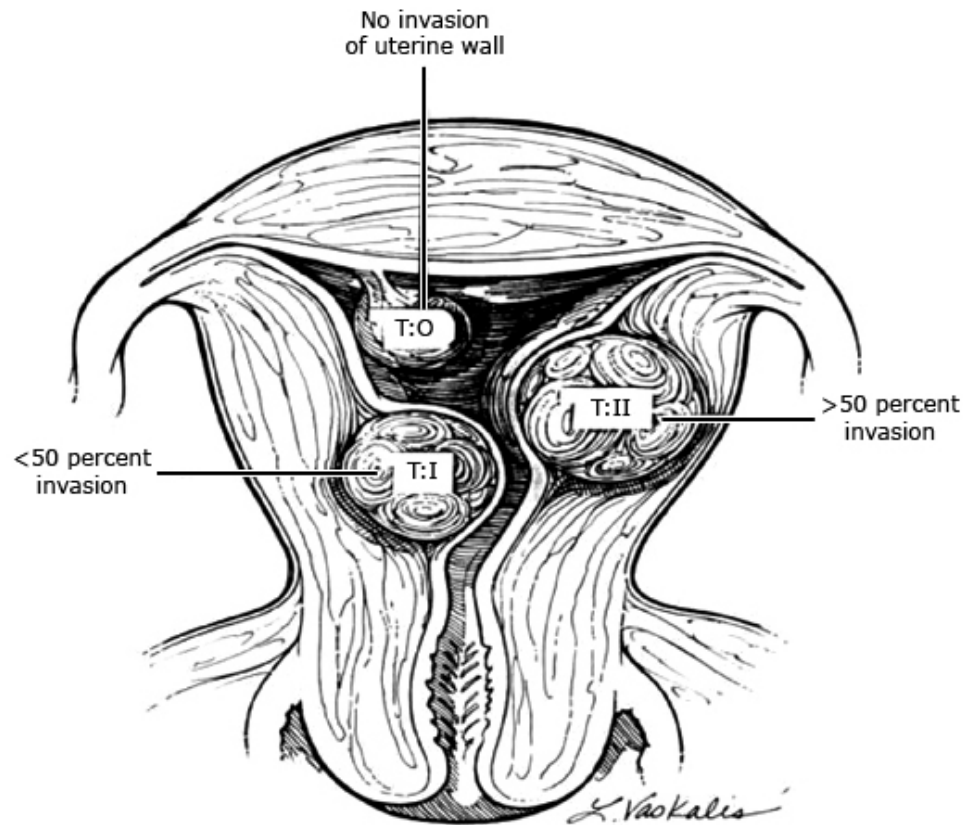
Presented with some spotting.

A systematic review including five randomized controlled trials found that postmenopausal hormone therapy was associated with some myoma growth, but this typically occurred without clinical symptoms

These findings were confirmed in a subsequent prospective study. Thus, the presence of leiomyomas is not a contraindication to use of postmenopausal hormone therapy and postmenopausal hormone therapy does not lead to development of new symptomatic fibroids in most women.

Woman with Subfertility – Please remove my fibroids?

# The European hysteroscopic classification of submucous leiomyomas



## Submucosal Fibroids

Meta-analysis of 23 studies that compared infertile women with and without leiomyomas (including one randomized trial) Women with fibroids that were submucosal or intramural with an intracavitary component were less likely to become pregnant (RR 0.36, 95% CI 0.18–0.74) and more likely to have a spontaneous abortion (RR 1.7, 95% CI 1.4–2.1).

Intramural Fibroid?

## Case history

37 years old with asymptomatic fibroids trying to conceive.

Myomectomy to prevent miscarriage in future

Is my fibroid responsible for the Miscarriage?



Case history

Postnatal clinic appointment

Primip 19 weeks pregnant, low lying fibroid with submucous component, ruptured membranes.

Conservative management- sepsis-miscarried

## Case History

Private patient

35 years old, intramural fibroid, had CS few months ago for breech.

Seen in Portland hospital- booked for myomectomy

Is my fibroid going to cause complications in my pregnancy and labour?

- Preterm labour and birth
- APH abruption
- Malpresentation
- Dysfunctional labour
- Increased CS rate
- PPH

Will my fibroid turn cancerous?  
Has my fibroid turned cancerous?

## Case history

45 years old known fibroids for 1-2 years, had few scans, presented with pressure symptoms.

Was trying to conceive for 1 year.

Booked for myomectomy.

Leiomyosarcoma

Complained!

Genetic evidence has been inconsistent over the years regarding whether sarcomas arise de novo or whether there is karyotypic evolution from leiomyomas to sarcomas, so called sarcomatous degeneration.

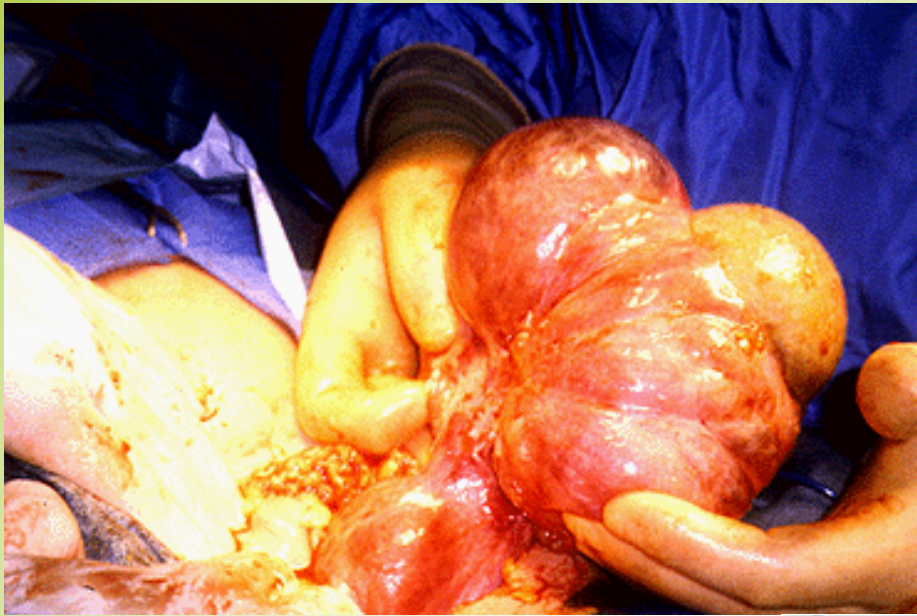
**The consensus from genetic studies has been that most sarcomas arise independently .**

Sarcomas typically have complex karyotypes and aneuploidy, while leiomyomas have characteristic rearrangements, many of which are shared by other benign tumors .

# SARCOMA VS. FIBROID

- Difficult to differentiate clinically.
- Large mass not increased risk of sarcoma.
- Rapid growth also does not mean sarcoma.
- Risk factors
  - Post menopausal status
  - Other risk factors
    - Previous pelvic radiation.
    - Familial leiomyomatosis with renal cell cancer





Incidental finding of prolapsing fibroid-What do I do?

## Case history

38 years old, seen in GOPD with prolapsing fibroid.

Booked for surgery

Patient deferred it for 2 weeks.

Admitted with septicaemia-ITU

## Case history

30 years old seen in A&E with menorrhagia

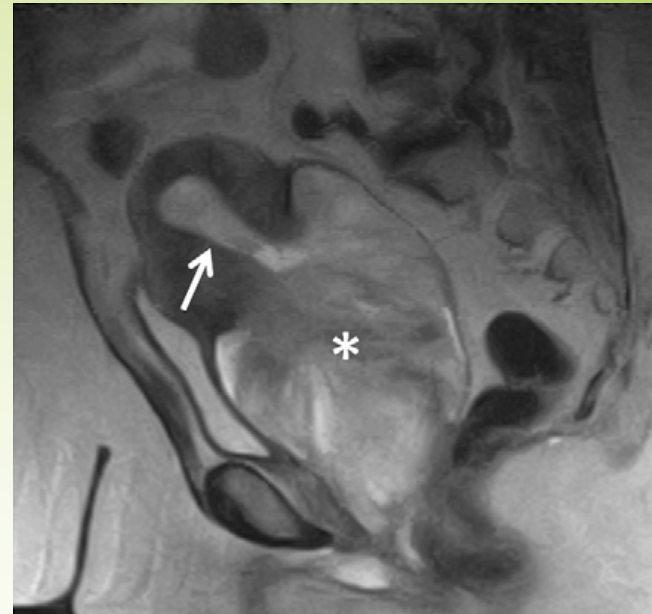
Husband complained that he felt something was there in the vagina.

Doctors exam?

Seen in DSU for hysteroscopy 2 weeks later

Prolapsing fibroid!

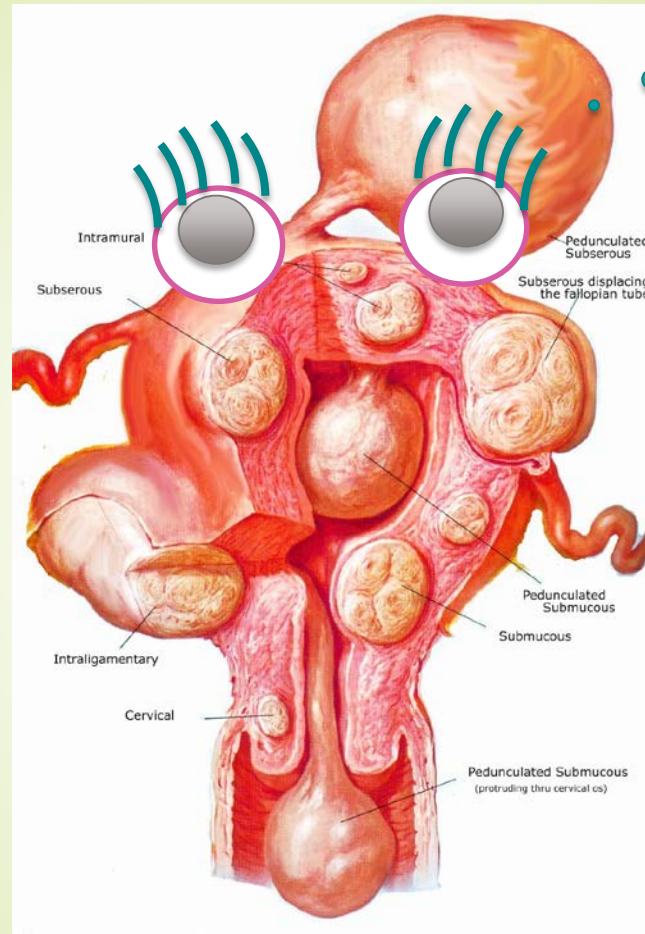
- Non pregnant uterus
- Pregnant uterus



Serious about health. Passionate about care.

Doctor will my fibroid come back ?

I think I need a gynaecologist



THANK YOU!

Any More Questions?