

Current consensus

Fibroids and Fertility

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OUTLINE

- Introduction
- FIGO classification
- Impact of Fibroids on Fertility
- Type 3 – Reclassification
- Evaluation
- To Remove or Not to Remove
- Role of Conservative management
- CONCLUSION

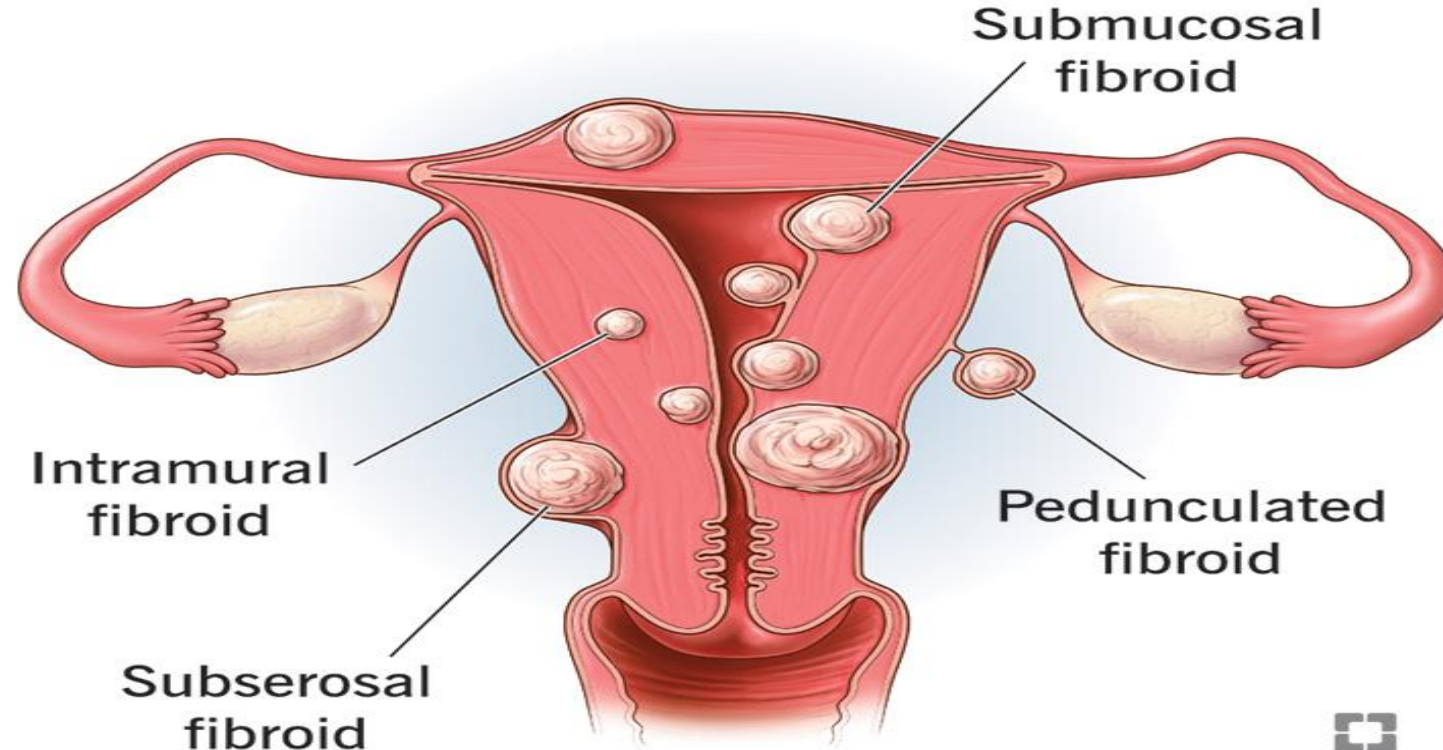
Introduction



- Affect up to 80% of women by age 50yrs
- A “paradoxical disease ” widely researched { Favilli et al 2023 }
- No robust scientific evidence on clinical management
 - Cause
 - High prevalence in Africans
 - Impact on fertility / Pregnancy
 - Best diagnostic modality

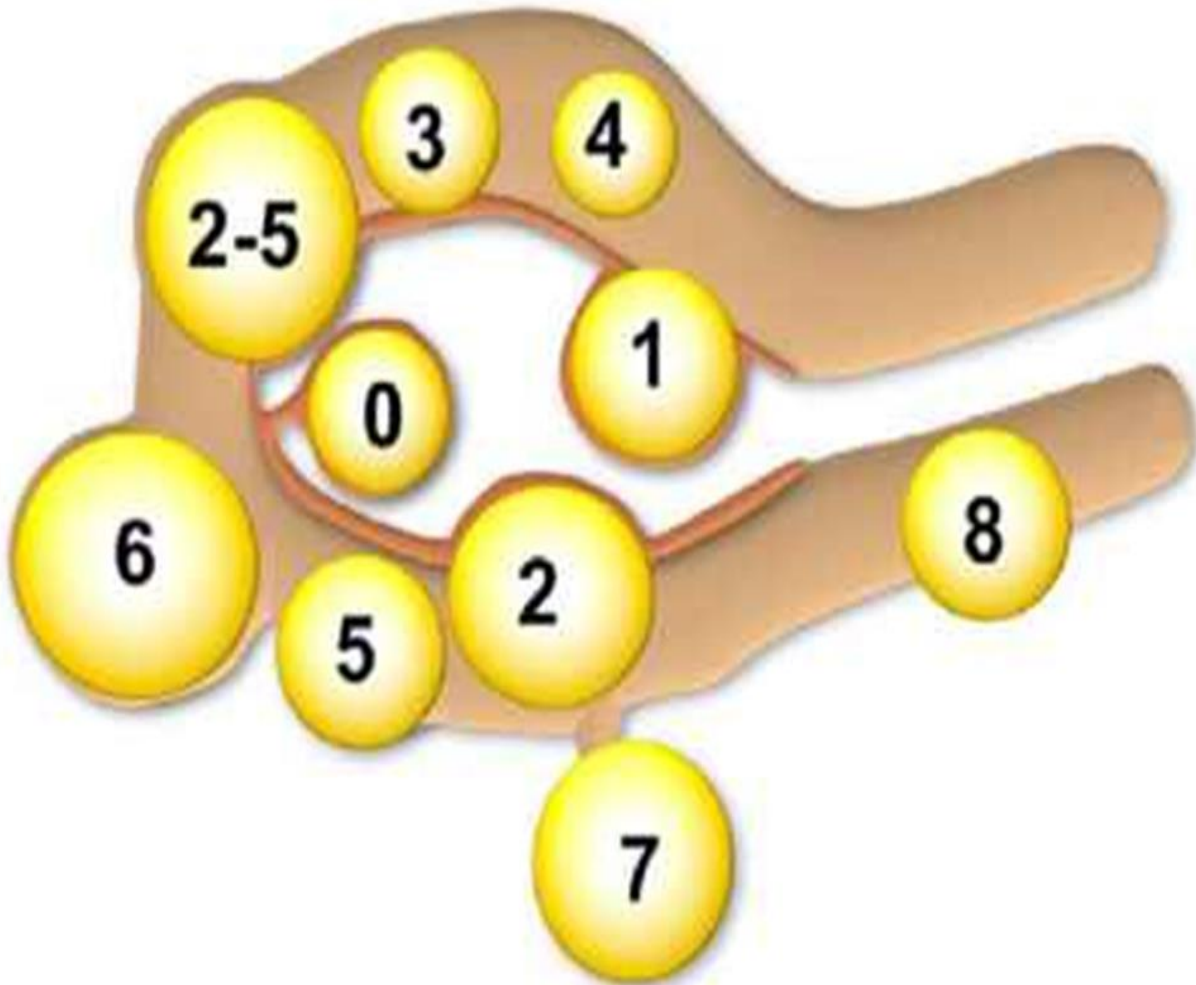
Improved clinical classification

Uterine fibroids



FIGO Classification

Munro et al Fert Ster 2011;95:2204-8



- SUBMUCOSAL
 - TYPE 0; 1; 2
- INTRAMURAL
 - Type 3; 4
- SUBSerosAL
 - Type 5; 6; 7
- Hybrid Leiomyoma
 - Type 2-5
- OTHER : Cervical and other location

What We Know

- Pritts et al 2001
 - Sub-serosal fibroids: No impact on Fertility
 - Submucosal fibroids must be removed
 - Intramural Fibroids : Not impacting the cavity NO effect on pregnancy
- Pritts et al 2009 : IM Fibroids Affect pregnancy
- Pritts et al 2001; 58: 483-91 OBS
- Pritts et al 2009: 91:1215-23 F/S

Effects of IM Fibroids on Fertility

OUTCOME	Relative Risk	Confidence interval
Clinical pregnancy rate	0.810	0.696 -0.941
Implantation rate	0.684	0.587-0.796
Ongoing Preg /LBR	0.703	0.583-0.848
Miscarriage	1.747	1.226-2.489
Preterm delivery	6.000	0.309-116.606 N/S

HOW FIBROIDS AFFECT FERTILITY

- Cavity distortion Type 0 ; 1; 2 ; 2-5 - *Sunkara et al 2010*
- Impair endometrial myometrial blood supply affects implantation (Kim et al 2014; Yan et al 2018)
- Increased uterine contractility – MRI based study Yashino et al 2010
- Thicker Capsule
- Molecular changes -*Taylor et al 2018*
- Impaired Endometrial receptivity and gene expression

Ongoing Debate

- What about the Size
- Does the number matter
- Location of IM Fibroids
- **To remove or NOT**



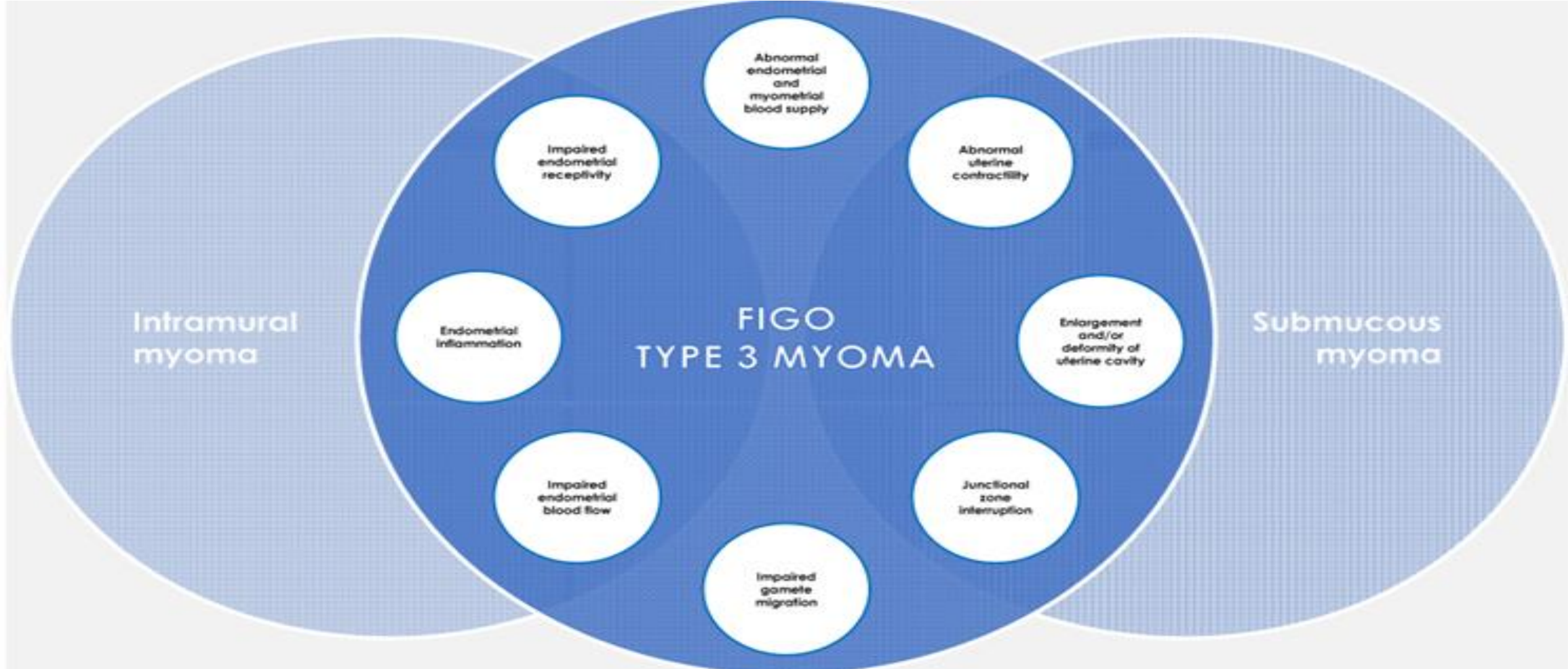
Non-Cavity Distorting

- Fibroids $\leq 2\text{cm}$ OR 0.74 (0.40 -1.36)
- $\leq 4\text{ cm}$ Low LBR but more research needed
- $\leq 6\text{ cm}$ Lower LBR
- Mult fibroids negative effect LBR
- Surgical removal of MFU IM evidence limited

Location of Fibroids

- Ultrasound – 2D ; 3D
- Hysteroscope - At low pressures TYPE 3 ; always to be done at myomectomy
- SIS -
- MRI – Better at mapping
- Hysterosalpingogram – Tubal assessment not the best for SM

Type 3 - Hybrid Fibroid New classification



Conservative management

- GNRH agonist
 - Reduce size of fibroid only
 - Type 3 to a Type 4
 - Not recommended as a pre surgical treatment TYPE 3 in Fertility !!!

- GNRH antagonist
- SPRM – Rx for 3 months only Liver fxn
- MRFUS – limited cases
- U A E : Not for Fertility requiring patient
- HIFU

Conservative management

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HIFU

Surgery

- Type 0: 1: 2 - Hysteroscopic resection
- Type 3 Submucosal : Hysteroscope up to 3cm
- Type 3 more the 2 in number; 3cm and above must be removed
- Laparoscope preferred over Laparotomy BUT

CONCLUSION

- Type 3 Fibroid reclassified as Submucosal
- FIGO 3 Size \geq 2cm impact Fertility negatively
- Hysteroscopic Myomectomy for FIGO 3 possible but data limited currently NOT recommended
- Size for myomectomy >2 cm
- GnRH agonist for size reduction from Type 3 to type 4



SASREG

Southern African Society of Reproductive Medicine
and Gynaecological Endoscopy



Thank you



References



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- *Lin et al **EJ OBRB** 2020; 247: April 176-180*
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- *Benecke C et al Gynae Obs Inve 2005; 59:225-30*

