



**Loyola
Medical
Group**

A Member of Trinity Health

ABNORMAL UTERINE BLEEDING

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OBJECTIVES

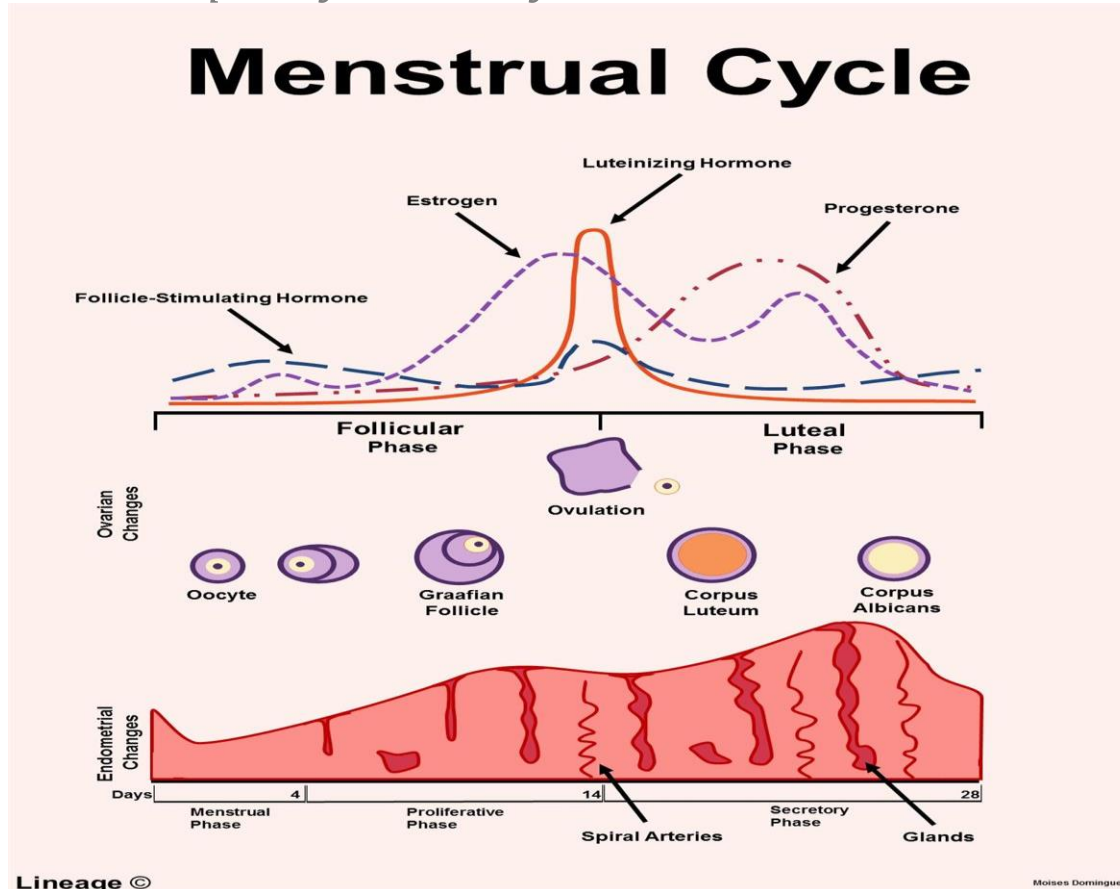


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- Menstrual Cycle
- Diagnosis of Abnormal Uterine Bleeding
 - *Leiomyoma*
 - *Ovulatory Dysfunction*
- Management Options of Abnormal Uterine Bleeding
- Sequelae of Abnormal Uterine Bleeding

MENSTRUAL CYCLE

- What is considered to be normal menstrual cycle?
 - *Duration, Frequency, Quantity*



<https://worldbuilding.stackexchange.com/questions/113010/ovulation-dependent-menstrual-cycle>

NOMENCLATURE of AUB

- Menorrhagia -→ heavy menstrual bleeding
- Metrorrhagia -→ intermenstrual bleeding
- Polymenorrhea
- Oligomenorrhea

DIAGNOSIS

PALM (structural)

Polyp

Adenomyosis

Leiomyoma

Malignancy

COEIN (nonstructural)

Coagulopathy

Ovulatory

Endometrial

Iatrogenic

Not Otherwise

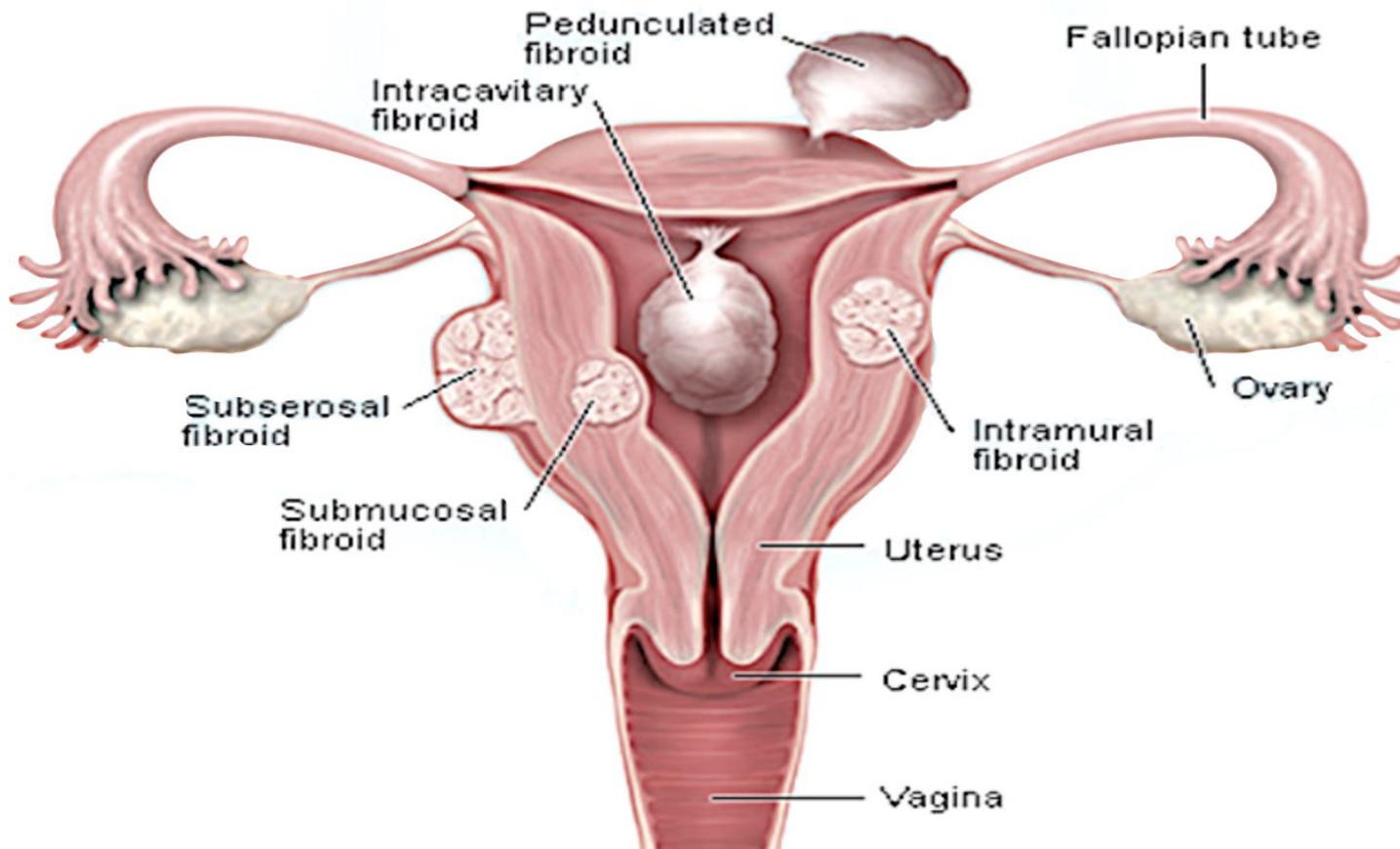
Specified



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LEIOMYOMA

Uterine Fibroids



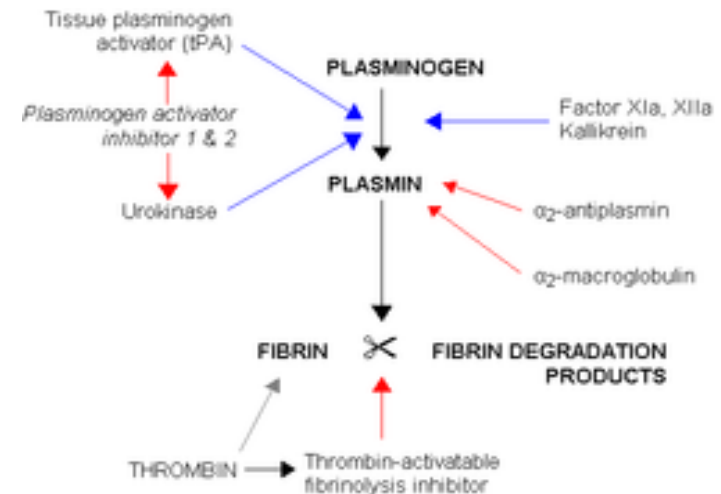
LEIOMYOMA



OVULATORY DYSFUNCTION

MECHANISMS

- Unopposed estrogen
- Abnormal prostaglandin synthesis and receptor upregulation
- Increased local fibrinolytic activity
- Increased tissue plasminogen activator activity

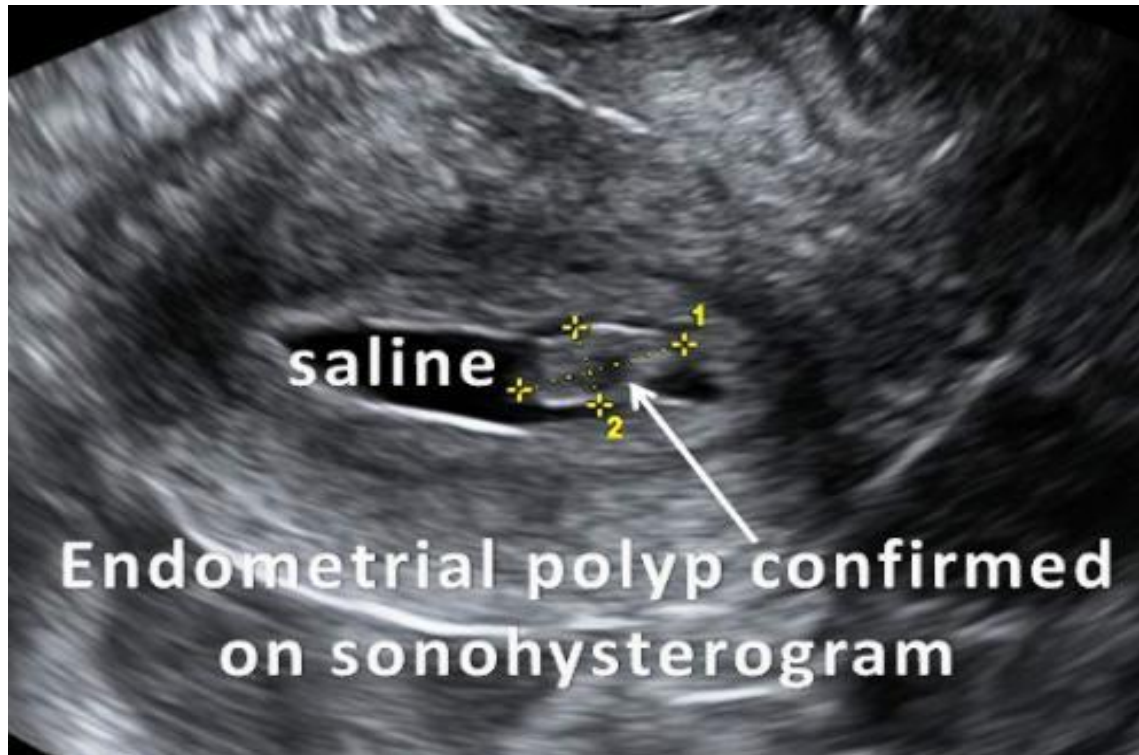


https://en.wikipedia.org/wiki/Tissue_plasminogen_activator

DIAGNOSIS

- Medical History
 - *bleeding disorder, medications, family history*
- Physical Exam
 - *ecchymoses, hirsutism, goiter, acanthosis nigricans, enlarged uterus or cervical polyp on pelvic exam, pap smear, endometrial sampling*
- Laboratory Testing
 - *CBC, TSH, Gonorrhea/Chlamydia, von Willebrand, HCG*
- Imaging
 - *pelvic ultrasound (transvaginal preferable), saline sonohysterography, hysteroscopy, MRI (not first line)*

SALINE SONOHYSTEROGRAM



<http://www.advancedwomensimaging.com.au/saline-sono-hysterogram>

MANAGEMENT: AUB-O

- Progestin-only therapies
 - *Levonorgestrel-releasing intrauterine system, medroxyprogesterone acetate (provera), megestrol acetate (megace), norethindrone acetate, depot medroxyprogesterone acetate*
- Combined hormonal contraceptives
 - *Oral contraception, vaginal ring (nuva ring), transdermal patch*
 - *U.S. Medical Eligibility Criteria for Contraceptive Use*
- Weight Loss
- NSAIDs
- Endometrial Ablation
- Hysterectomy

MANAGEMENT: AUB-L

- Medical Management with progesterone/estrogen
- Myomectomy
 - *Laparoscopy, laparotomy, hysteroscopy (i.e. myosure)*
 - *Pros and Cons*
- Uterine Artery Embolization
- Hysterectomy
 - *Laparoscopy, laparotomy, vaginal (preferred approach)*
 - *Pros and Cons*

SEQUELAE



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- Chronic anemia
- Emergency procedures
- Quality of life
- Fertility
- Chronic pelvic pain
- Malignancy

QUESTIONS



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REFERENCES

Diagnosis of Abnormal Uterine Bleeding in Reproductive-Aged Women

ACOG Practice Bulletin, Number 128, July 2012

Management of Abnormal Uterine Bleeding Associated With Ovulatory Dysfunction

ACOG Practice Bulletin, Number 136, July 2013