



# FEMALE GENITAL SYSTEM PATHOLOGY

## Lec. 5

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# PROLIFERATIVE LESIONS OF THE ENDOMETRIUM AND MYOMETRIUM

Continue -----

## Tumors of the Myometrium

### Leiomyoma

These are benign masses of uterine smooth muscle cells;  
They are the most common tumor in women.

#### **Risk factors**

Fibroids are dependent on estrogen to grow and therefore relevant only during the reproductive years.

Fibroids are more common in nullipara, low parity & obese women.

In negroes, myoma is 3-9 times more, appear earlier and grow faster.

#### **Genetics**

While most have a normal karyotype,

Some 40% have a balanced  $t(12;14)$  translocation, partial deletions of chromosome 7q, trisomy 12, or rearrangements of 6p, 3q, or 10q.

## Clinically

Leiomyomas may be asymptomatic or can present with abnormal uterine bleeding, pain, urinary bladder disorders, and impaired fertility.

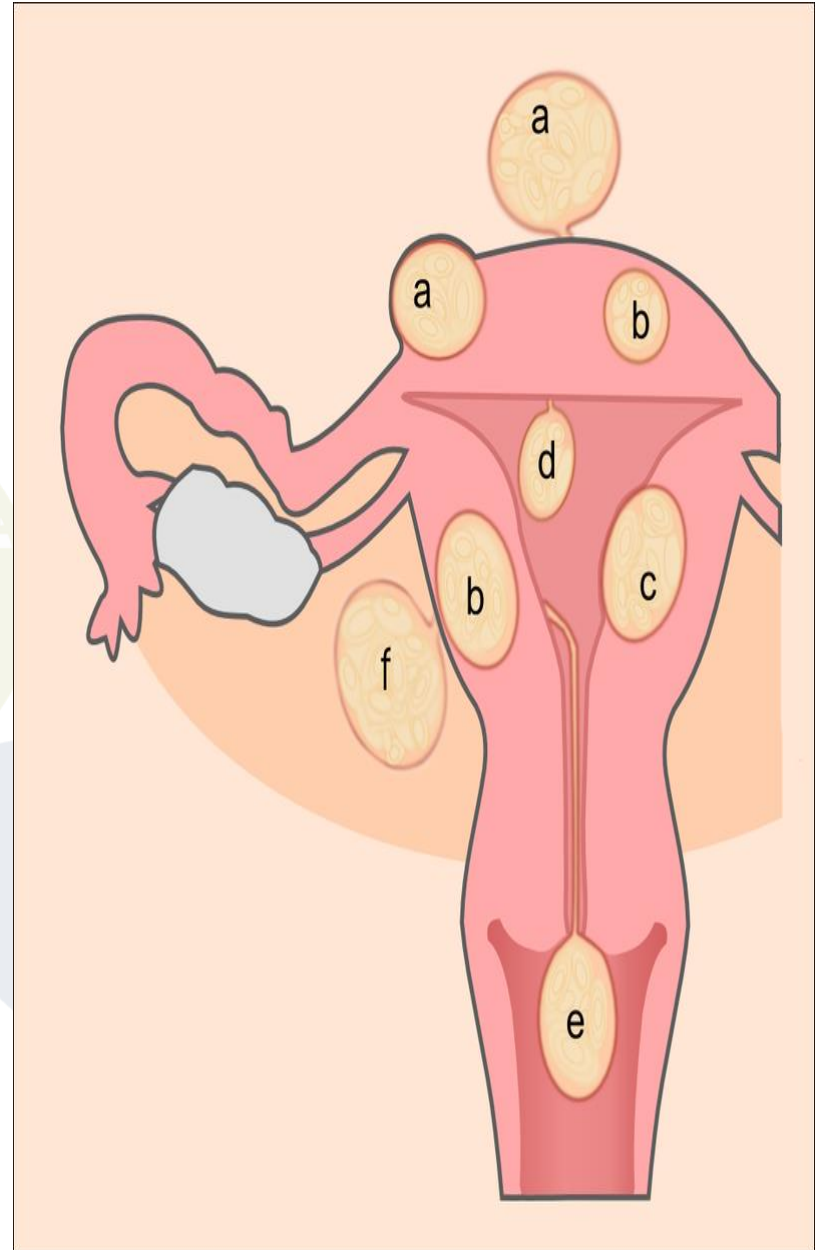
Large leiomyomas may be palpated by the affected woman or may produce a pressure symptoms .

**Malignant transformation is extremely rare**

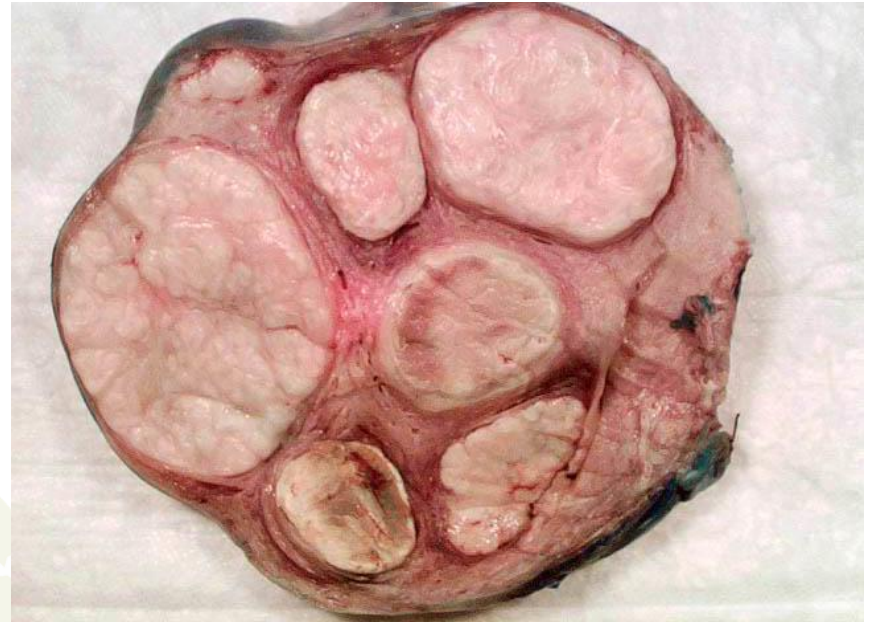
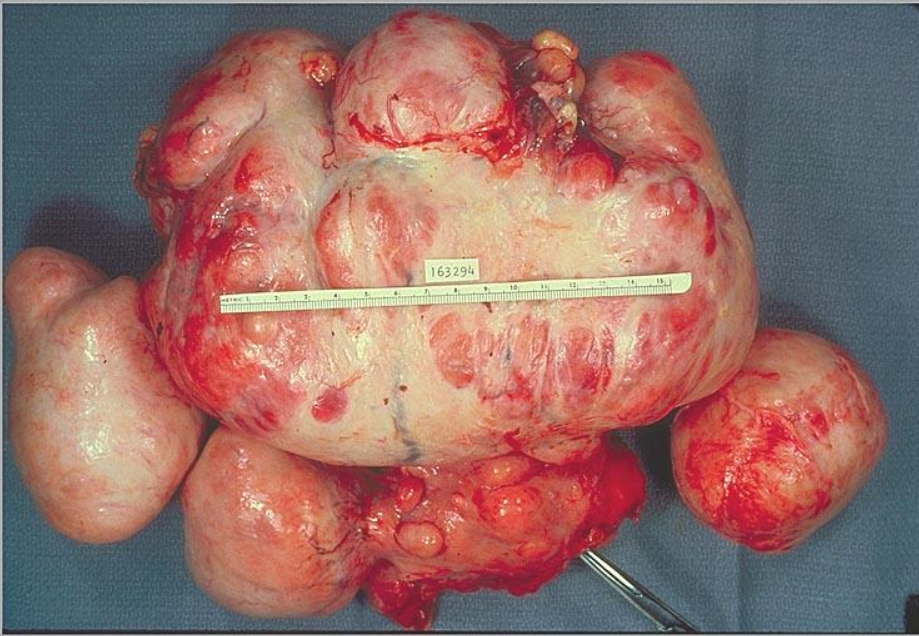
# MORPHOLOG

## Y

- **Site** – Leiomyoma can occur
  - ❖ A = Subserosal fibroids
  - ❖ B = Intramural fibroids
  - ❖ C = Submucosal fibroid
  - ❖ D = Pedunculated submucosal fibroid
  - ❖ E = Cervical fibroid
  - ❖ F = Fibroid of the broad ligament
- **Size** - varying in size from small to massive tumors that fill the pelvis
- **Number** – single or most often multiple
- **Shape** - sharply circumscribed, discrete, round
- **Color & Consistency** - firm, gray-white tumors.
- **on cut section** - *characteristic whorled pattern of smooth muscle bundles.*



# Uterus, leiomyomata



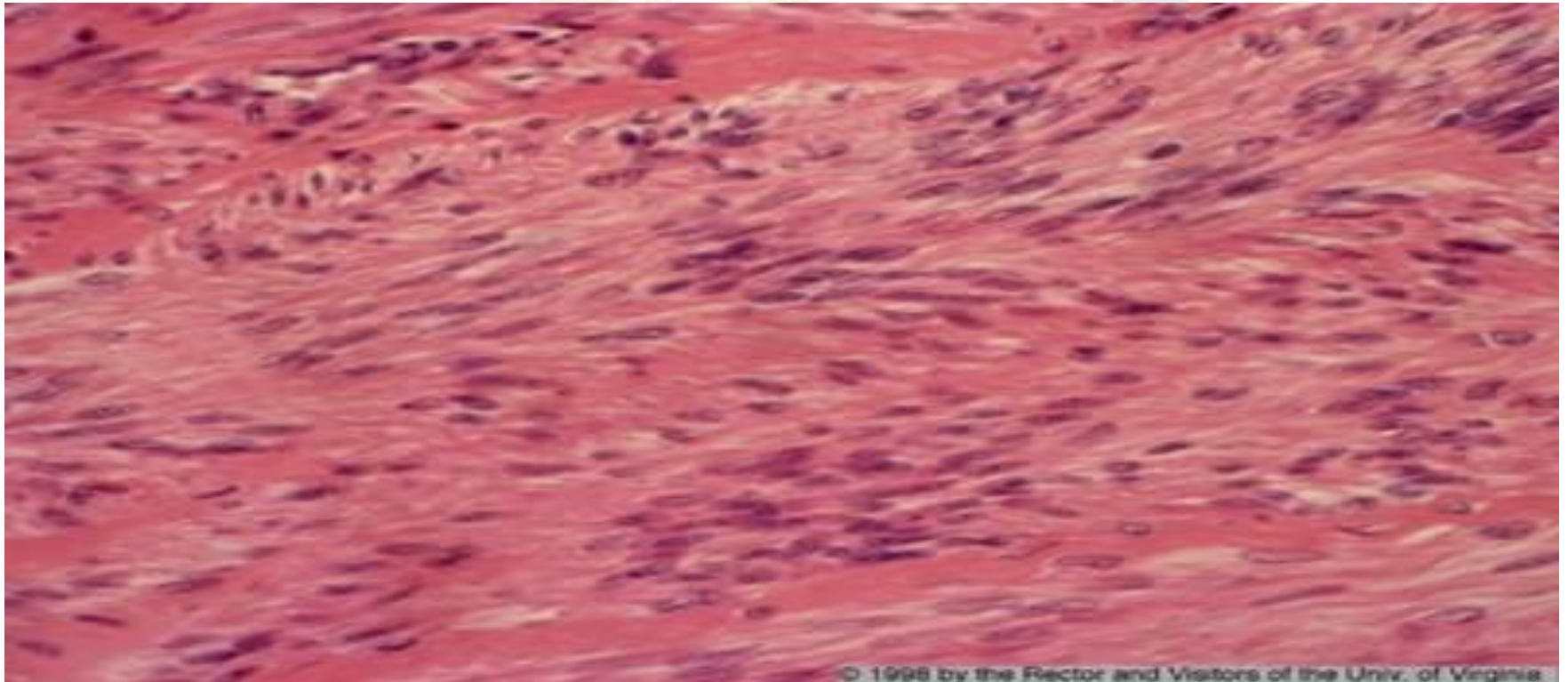
**Cut surface whorled appearance**

**Tumors are sharply circumscribed, discrete, round, firm, gray-white nodules**



On histologic examination leiomyoma is composed of *whorled bundles of smooth muscle* cells that resemble the uninvolved myometrium as well-differentiated, regular spindle-shaped smooth muscle cells associated with hyalinization

- uniform in size and shape
- Have the characteristic oval nucleus
- Long , slender bipolar cytoplasmic processes

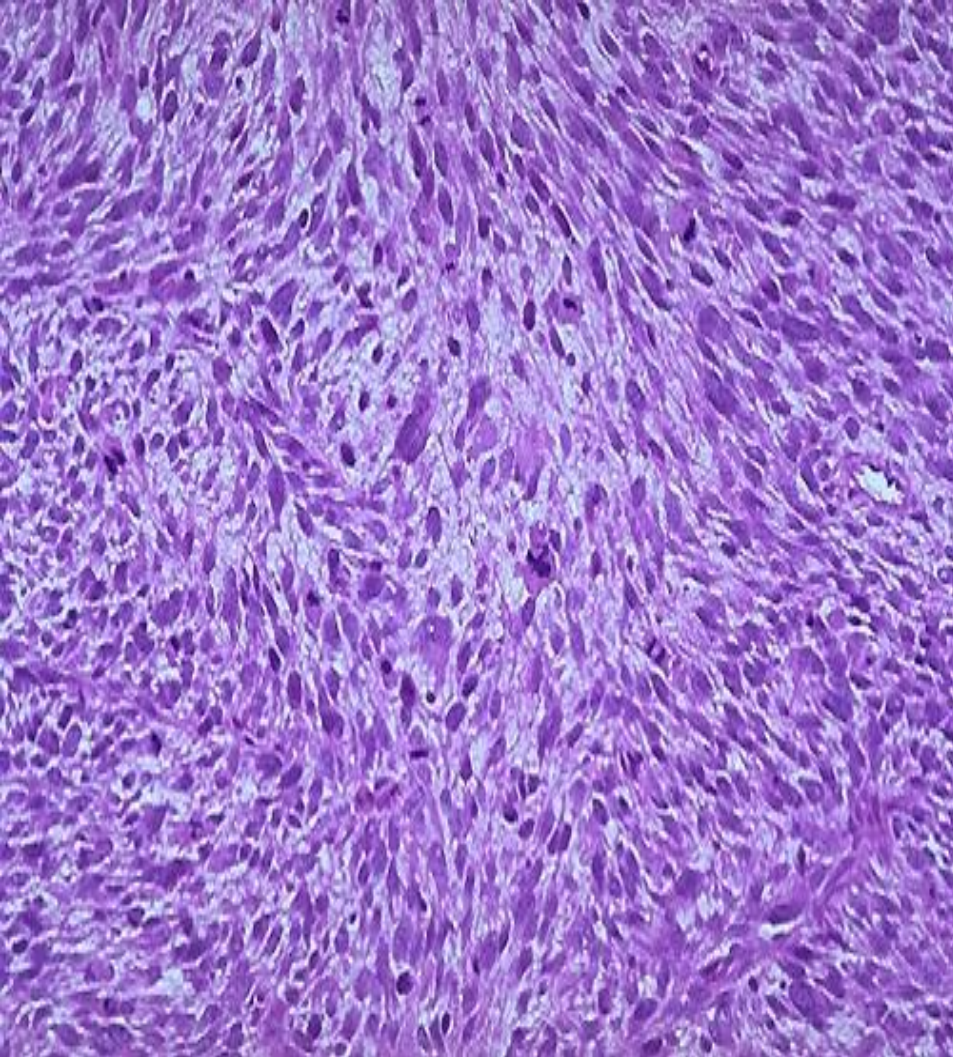


# Leiomyosarcoma

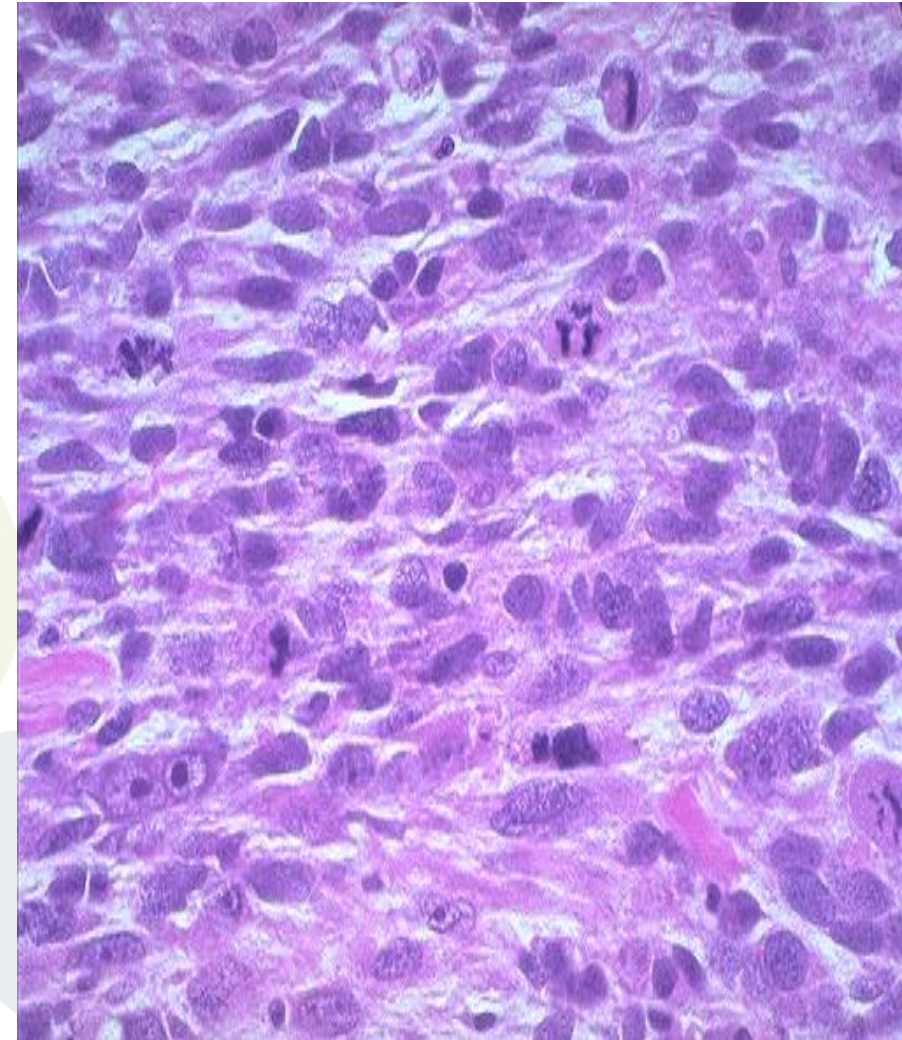
- Uncommon malignancies that form bulky, fleshy masses in the uterine wall or project into the lumen
- They are almost always solitary and most often occur in postmenopausal women, in contradistinction to leiomyomas, which frequently are multiple and usually arise premenopausally.
- Typically take the form of **soft, hemorrhagic, necrotic masses.**
- Recurrence after removal is common, and These tumors disseminate throughout the abdominal cavity and aggressively metastasize.
- The overall 5-year survival rate is 40%.



# Leiomyosarcoma

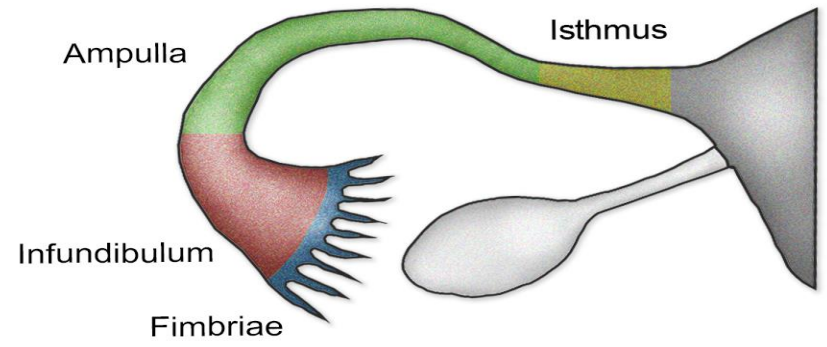


The tumor is much more cellular and the cells have much more pleomorphism and hyperchromatism than the benign leiomyoma. An irregular mitosis is seen in the center.

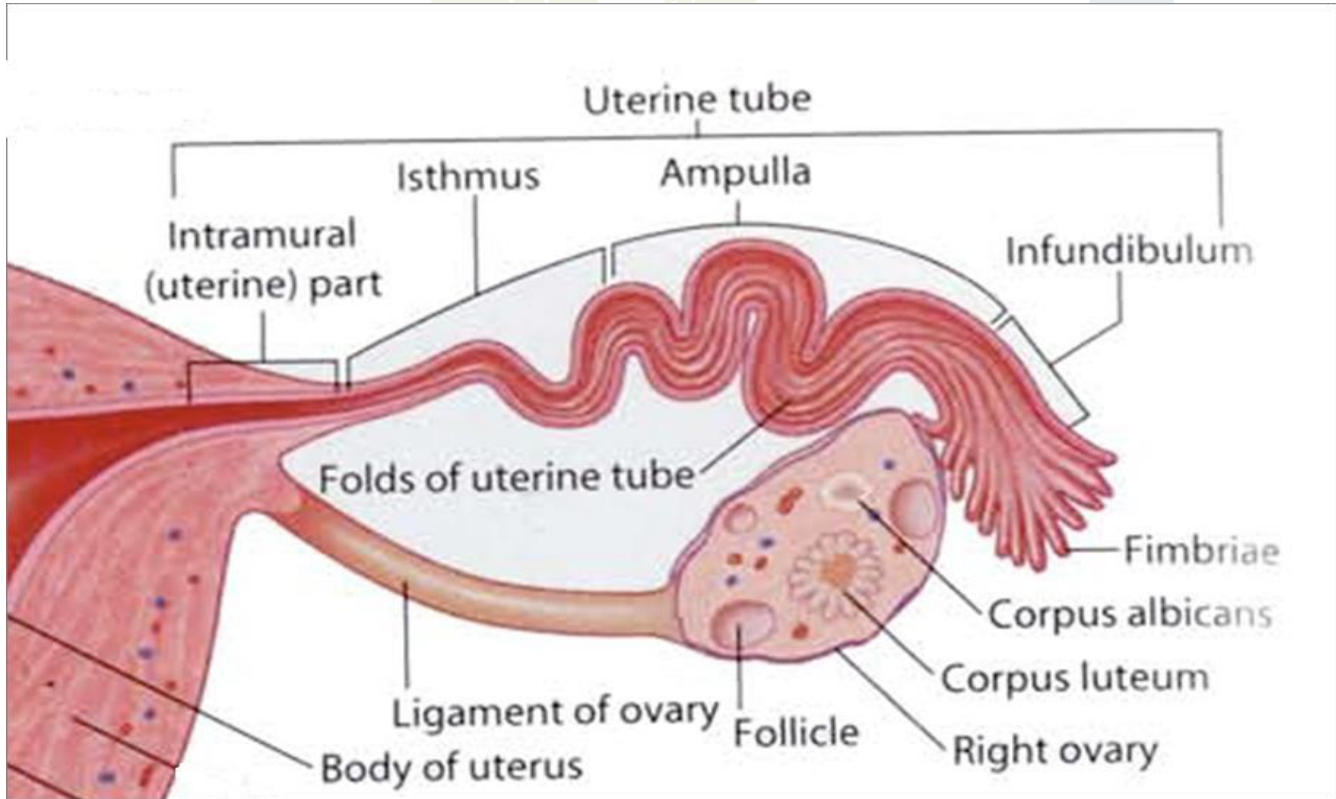


As with sarcomas in general, leiomyosarcomas have spindle cells. Several mitoses are seen here, just in this one high power field.





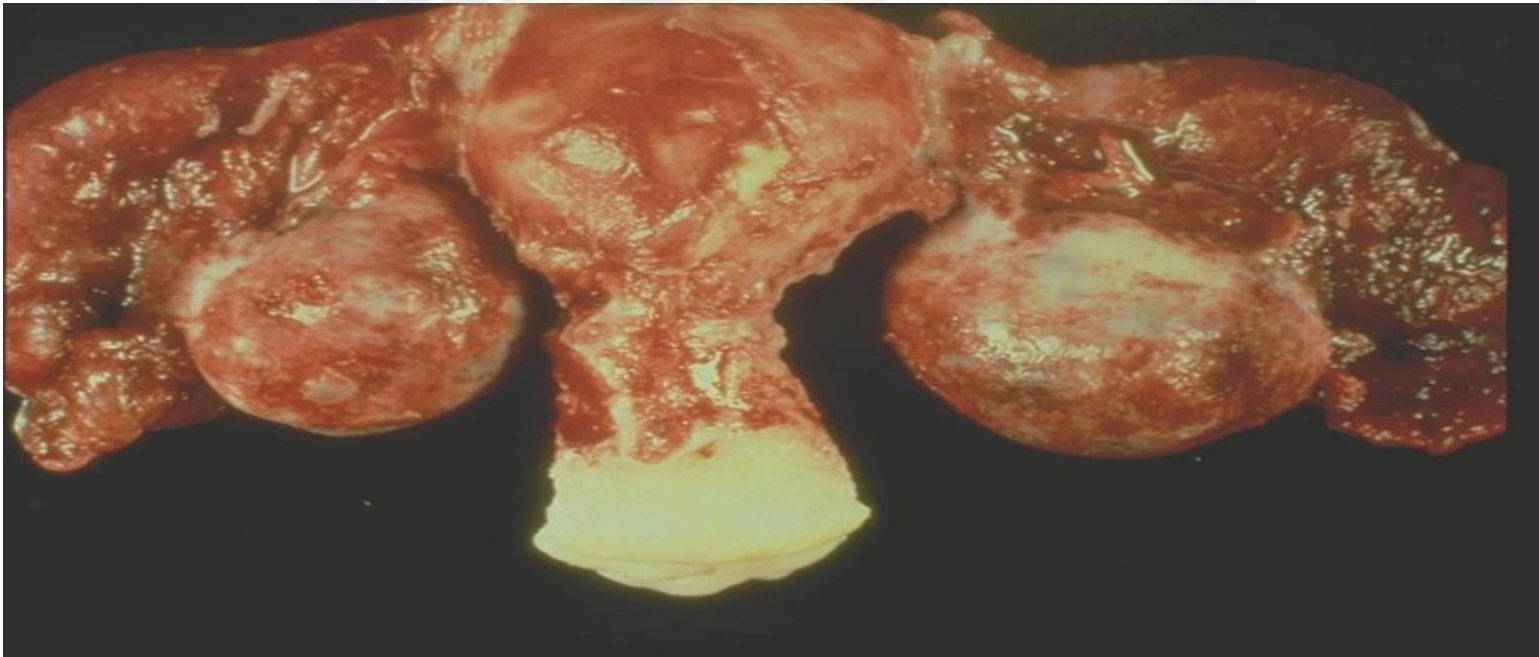
# FALLOPIAN TUBES



# Inflammations

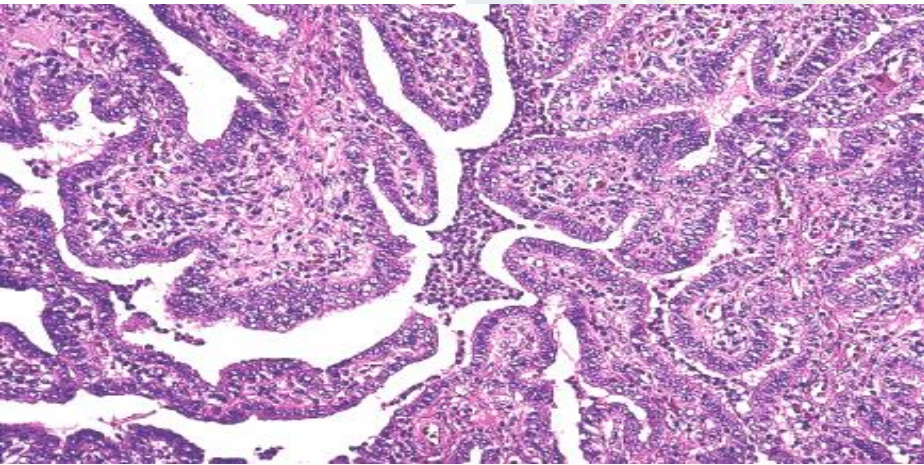
**Suppurative salpingitis is typically a component of PID; gonococcal infections account for 60% of cases, although any of the pyogenic organisms can be involved; Chlamydia is less often a factor.**

**Tuberculous salpingitis is rare but is an important cause of infertility worldwide.**

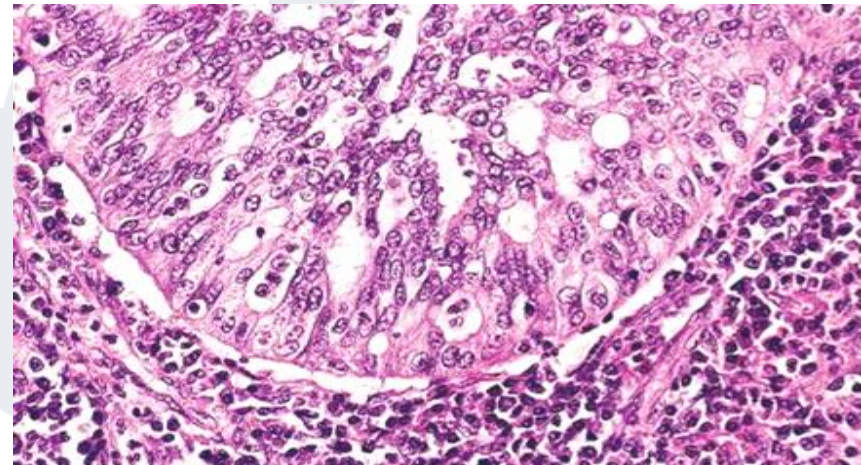




# HYDROSALPINX



**blunting of villi due to heavy inflammatory cells infiltration.**



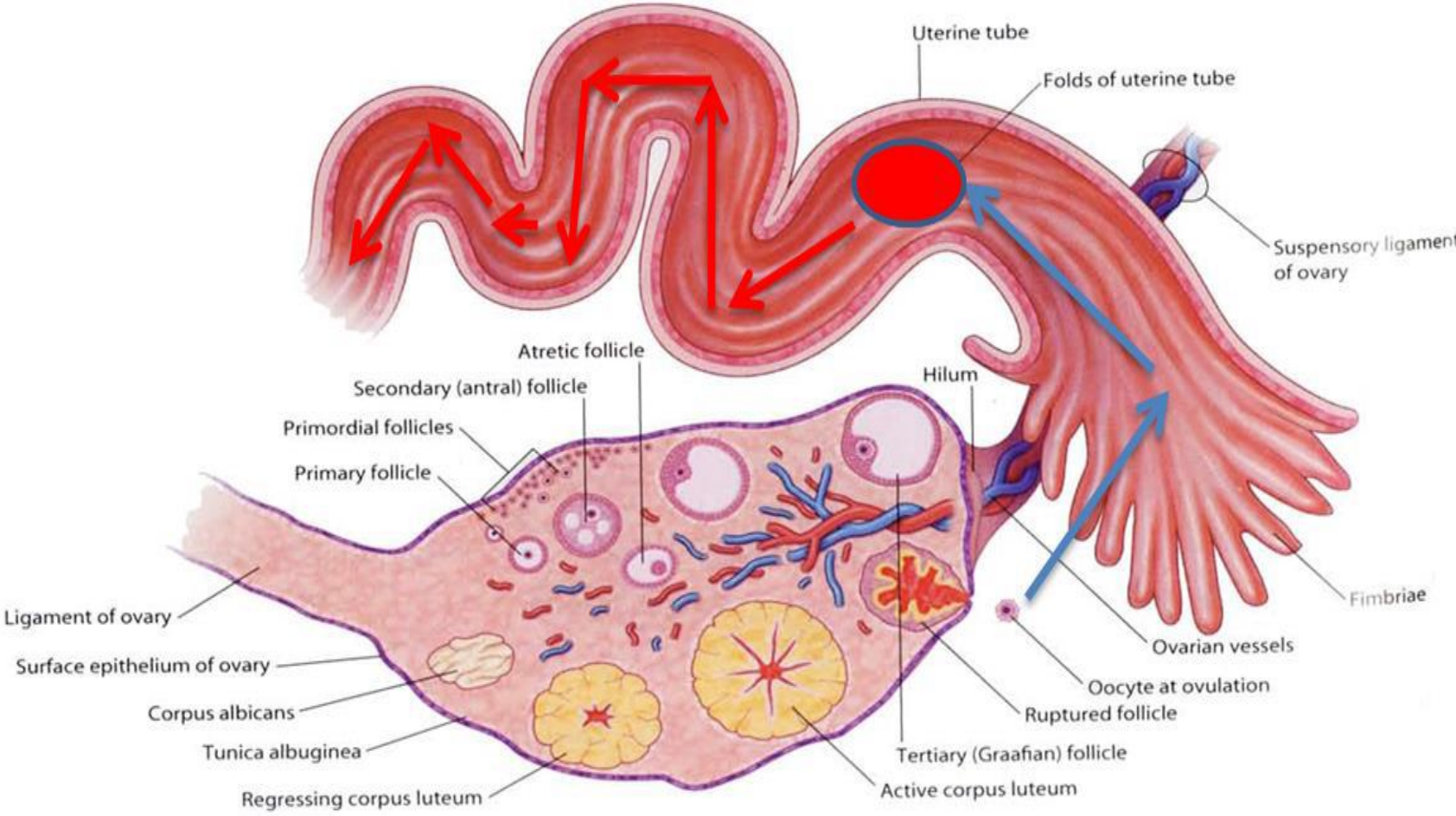
**marked secondary reactive hyperplasia of the mucosa, which may simulate a malignant process.**



## **F.T. Tumors and Cysts**

- **The most common primary lesions are benign paratubal cysts (1 to 2 mm translucent cysts filled with serous fluid); larger versions near the fimbria are called hydatids of Morgagni.**
  - **Benign neoplasms include adenomatoid tumors, comprising small nodules of mesothelial cells.**
  - **Primary tubal adenocarcinoma is rare and not usually discovered until they spread , in time they may cause death**
- Even early stage tumors have a 40%, 5-year mortality; prognosis worsens with higher stages.**

# Ovary

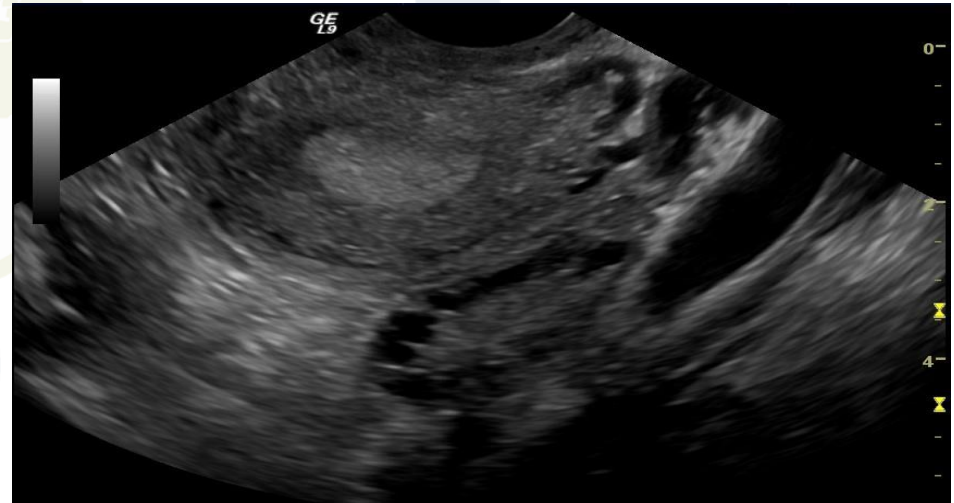


Structure of the uterine tube and ovary (posterior view)

# Polycystic ovarian disease PCOD

## Stein-Leventhal syndrome

- 3-6% of women in reproductive age
- it presents with numerous cystic follicles, often with associated
  - oligomenorrhea
  - Persistent anovulation
  - Obesity
  - Hirsutism
  - Rarely Virilization
  - insulin resistance
  - Ultrasound

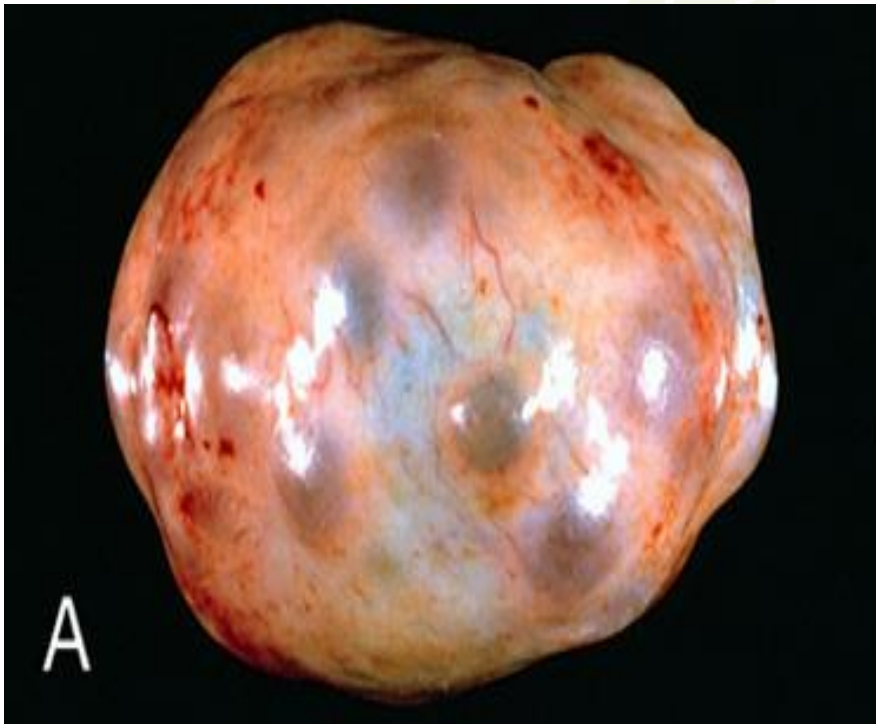


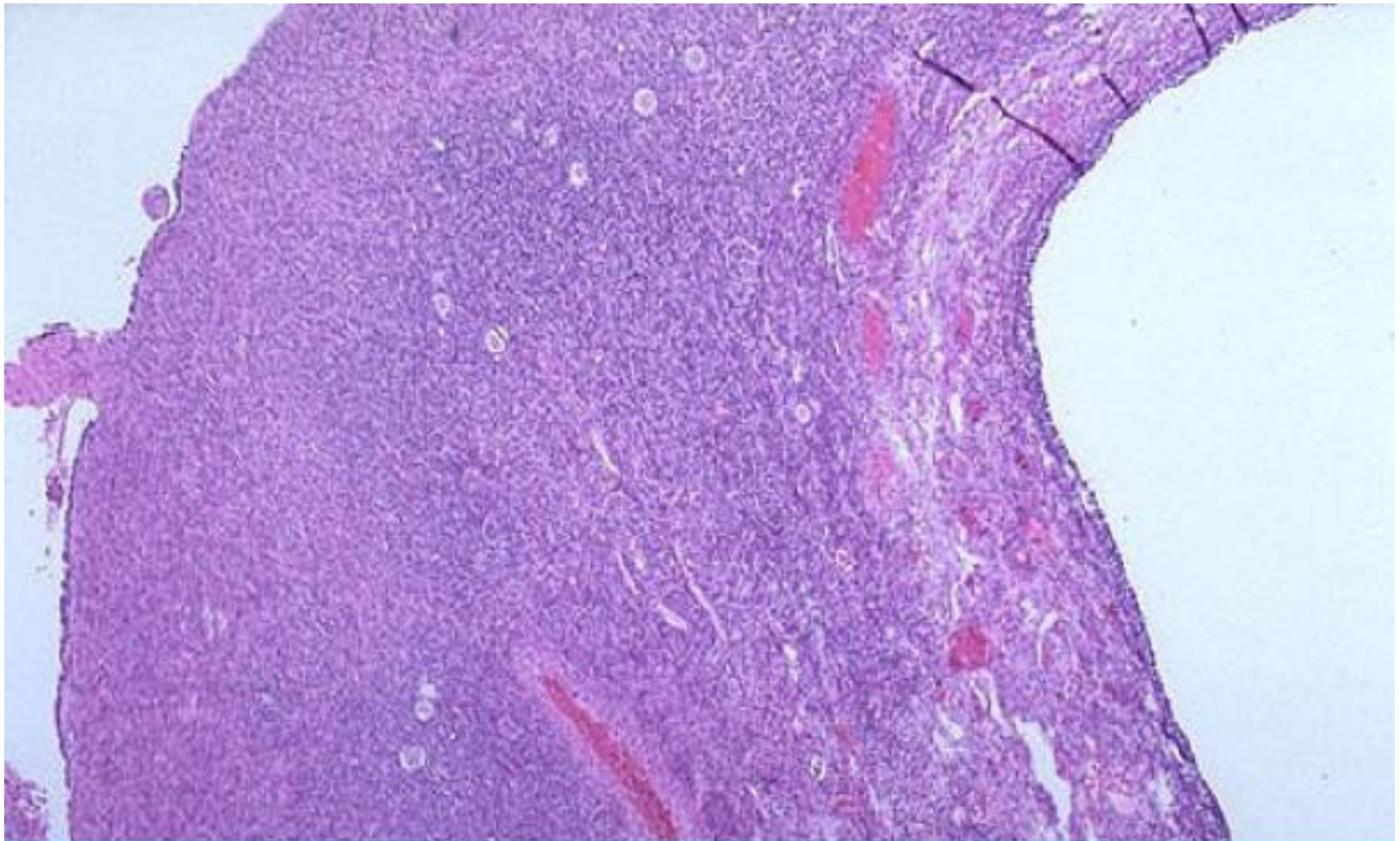
The ovaries are enlarged with cortical fibrosis; innumerable subcortical cysts (i.e., up to 1 cm) exhibit theca interna hyperplasia.



## Morphology:

- Ovary is enlarged 2time
- Grayish white with smooth surface
- Thick cortex
- Cortex is studded with subcortical cysts of 0.5- 1 cms.





Polycystic ovarian disease (PCOD) is characterized by ovarian enlargement with thickening of the outer cortex (at left) and many follicle cysts (one is at the right). PCOD with oligomenorrhea is known as Stein-Leventhal syndrome. Anovulatory cycles can be coupled with endocrine abnormalities including hirsutism. Some patients are obese.

THANK YOU  
FOR YOUR  
ATTENTION