

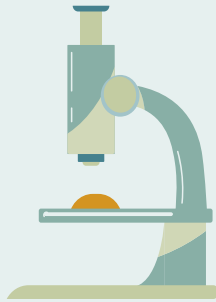


MED439
KING SAUD UNIVERSITY

Revised & Approved



جامعة
الملك سعود
King Saud University



Histology Team
439

Reproductive OSPE

Color index:

Slides

Important

Doctors notes

Extra

Editing file

Important notes:

- According to the females doctor, you will be asked about:

1- Identifying the structure

2- Labels

***mostly you won't be asked about features :(**

- Write the f... Oh I just remember this OSPE is MCQs :)

- You should study the original file first, this file is for revision only and it's made by students.

★ Q1/ Identify the structure?

Ovary

★ Q2/ What is the type of Epithelium covering this structure?

Simple squamous epithelium “Germinal epithelium”

Q3/ What does this structure composed of?

Inner medulla: consists of highly vascular loose CT.

Outer cortex: contains ovarian follicles in various stages of development in a CT stroma composed of fibroblast-like stromal (or interstitial) cells.

Q4/ What are the features of the structure?

1. Germinal Epithelium

2. Tunica Albuginea

3. Cortex

4. Medulla

5. Atretic Follicles

6. Corpus Luteum

7. Corpus Albicans

8. Ovarian Follicles (Primordial, Primary, Secondary, And Graafian)

★ Q5/ Identify the labels?

1- Tunica albuginea

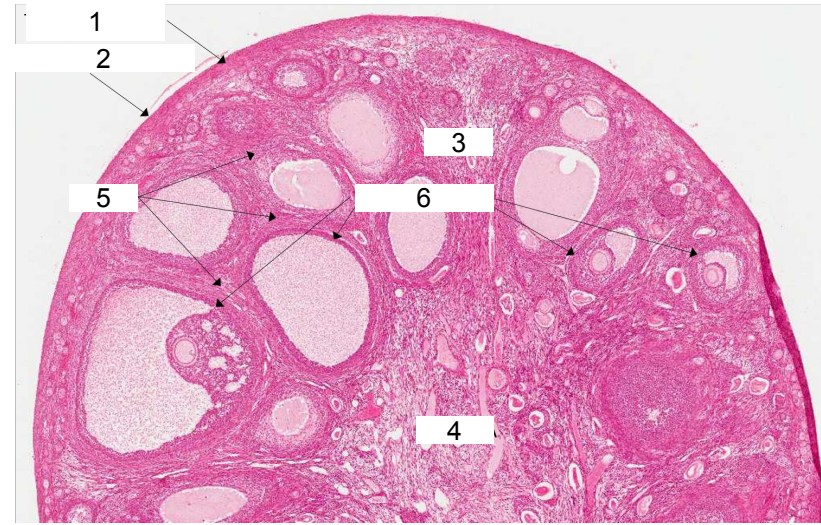
2-Germinal epithelium

3-cortex

4-medulla

5-Stroma

6-Ovarian follicles



★ **Q1/ Identify the structure?**

Ovary – Primordial & Primary Follicles

Q2/ What does this structure composed of?

formed of one large cell (which is the primary oocyte) surrounded by a single layer of flat cells called follicular cells

Q3/ What is the type of primary oocyte found in this structure?

multilaminar primary follicle, because it has more than one layer of cuboidal follicular cells, which are now called granulosa cells.

★ **Q4/ Identify the labels?**

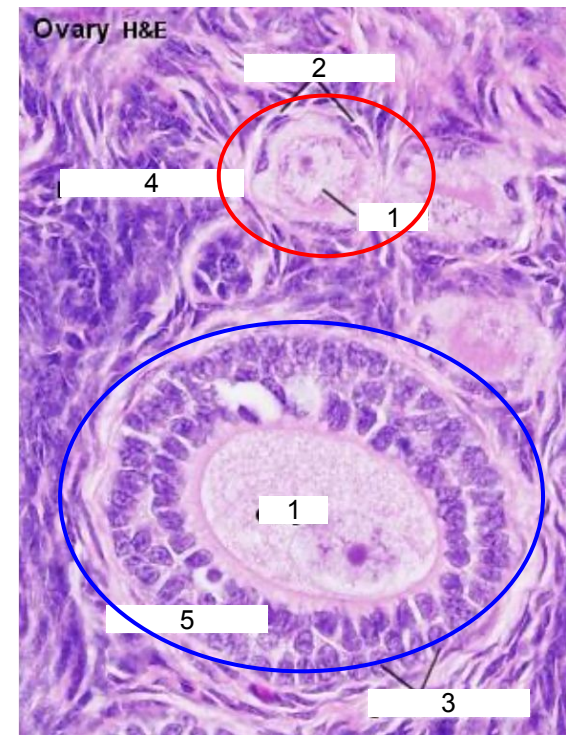
1- Primary oocyte

2-follicular cells

3-Granulosa cells

4 “red circle” -Primordial follicle

5 “ blue circle” - Primary follicle



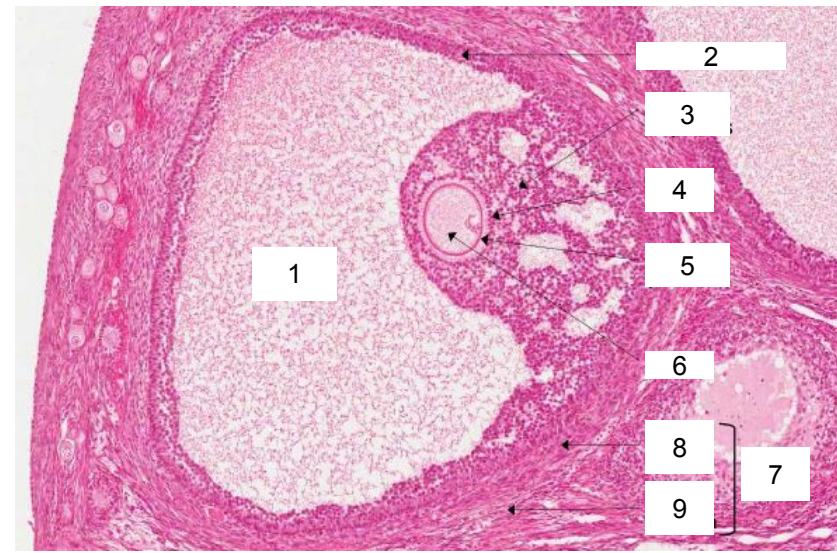
★ **Q1/ Identify the structure?**

Mature (Graafian) Follicle

Q2/ What does this structure composed of?

A cavity: which called follicular antrum and is filled with follicular fluid (or liquor folliculi)

A wall: is formed of few layers of granulosa cells called zona granulosa resting on a basement membrane surrounded by theca folliculi



Q3/ What are the features of the structure?

- | | | | |
|---|---------------------|--------------------|------------|
| 1. Germinal Epithelium | 2. Tunica Albuginea | 3. Cortex | 4. Medulla |
| 5. Atretic Follicles | 6. Corpus Luteum | 7. Corpus Albicans | |
| 8. Ovarian Follicles (Primordial, Primary, Secondary, And Graafian) | | | |

★ **Q4/ Identify the labels?**

- | | |
|---------------------|------------------|
| 1-Follicular antrum | 2-Zona granulosa |
| 3-Cumulus oophorus | 4-Corona radiata |
| 5-Zona pellucida | 6-Primary oocyte |
| 7-Theca folliculi | 8- theca interna |
| 9- theca externa | |

★ **Q1/ Identify the structure?**

Fallopian tube

★ **Q2/ What is the type of Epithelium covering this structure?**

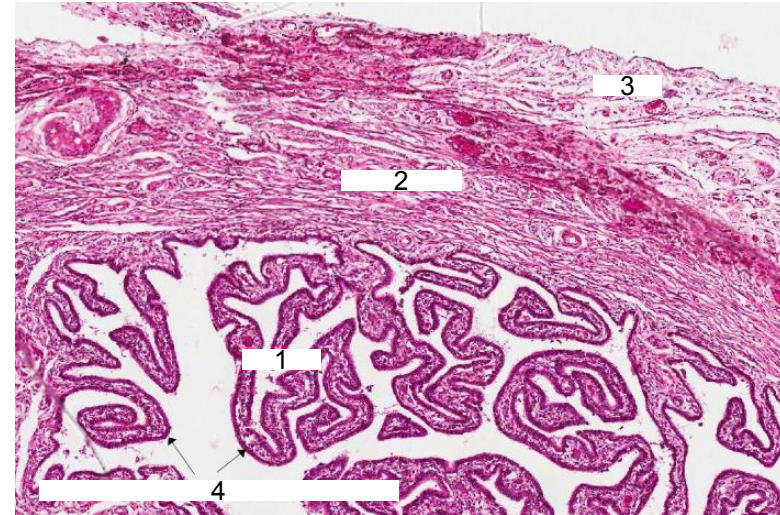
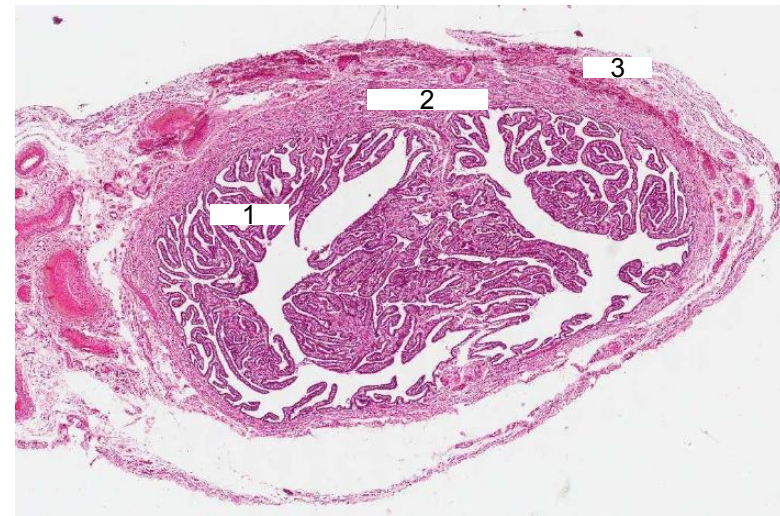
simple columnar partially ciliated epithelium

Q3/ What are the features of the structure?

1. highly folded mucosa
2. Muscularis
3. Serosa
4. simple columnar partially ciliated epithelium.

★ **Q4/ Identify the labels?**

- 1- Mucosa
- 2- Musclorsa
- 3- Serosa
- 4-Simple columnar partially ciliated epithelium



★ Q1/ Identify the structure?

Uterus

★ Q2/ What is the type of Epithelium covering this structure?

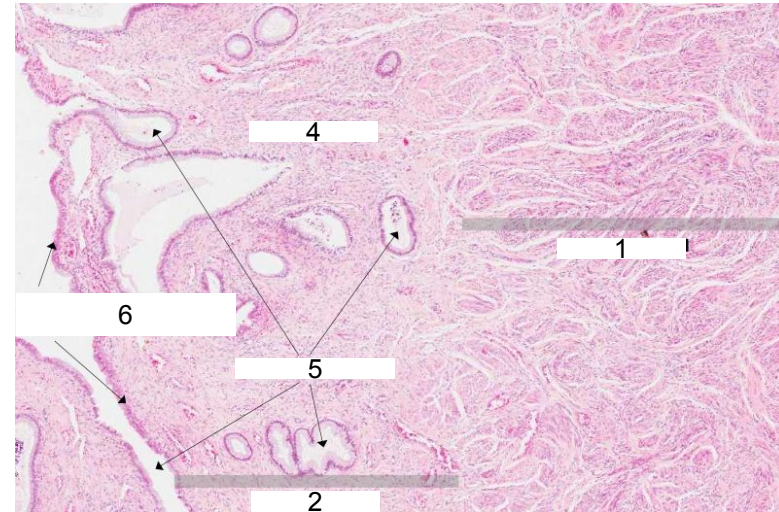
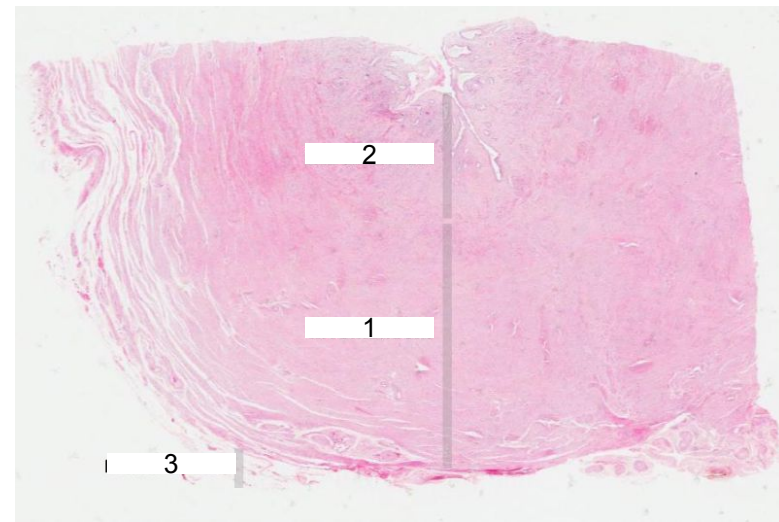
simple columnar partially ciliated epithelium

Q3/ What are the features of the structure?

1. Endometrium
2. Myometrium
3. Perimetrium
4. endometrial glands
5. simple columnar partially ciliated epithelium.

★ Q4/ Identify the labels?

- 1- Myometrium
- 2- Endometrium
- 3- Perimetrium
- 4- lamina propria
- 5- Endometrial gland
- 6- Simple columnar partially ciliated epithelium



★ **Q1/ Identify the structure?**

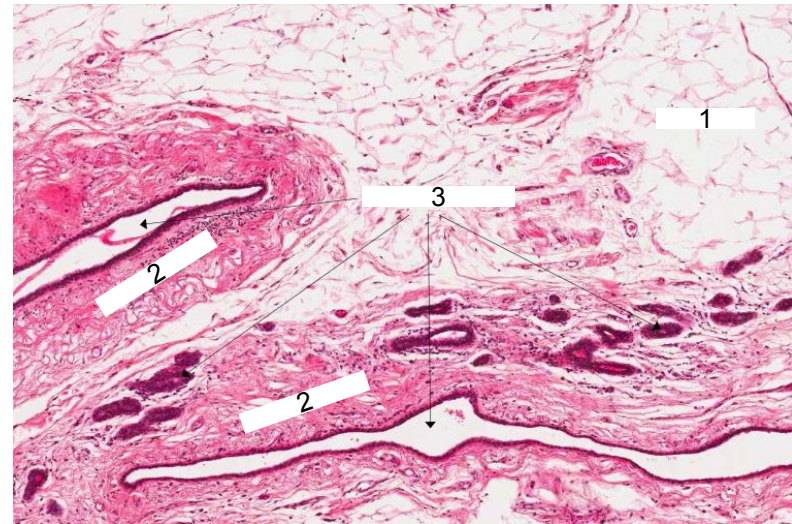
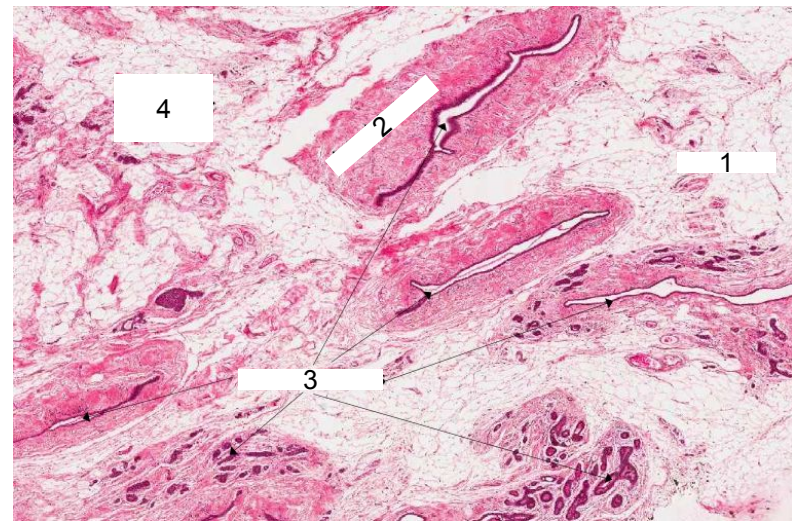
Resting (non-lactating) mammary gland

Q2/ What are the features of the structure?

1. wide interlobular CT septa
2. adipose CT
3. intralobular ducts lined by a single or a double layer of cuboidal epithelium
4. no secretory units (no alveoli, no milk secretion).

★ **Q3/ Identify the labels?**

- 1- Adipose CT
- 2- Intralobular CT
- 3- Intralobular ducts
- 4- Wide interlobular CT septa



★ **Q1/ Identify the structure?**

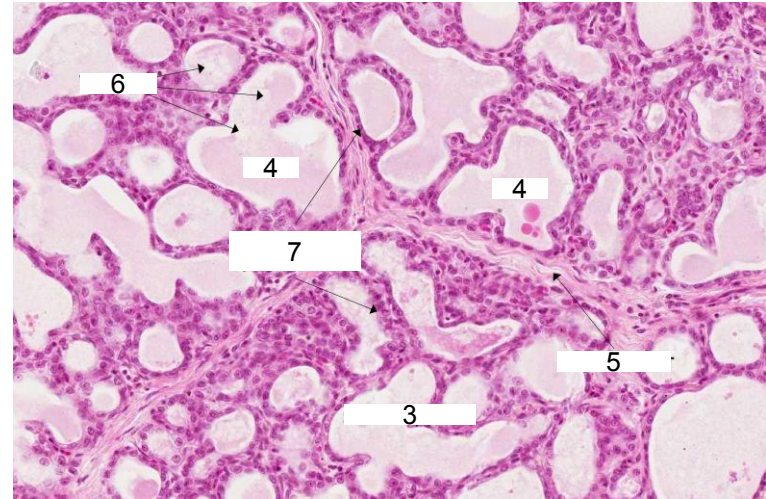
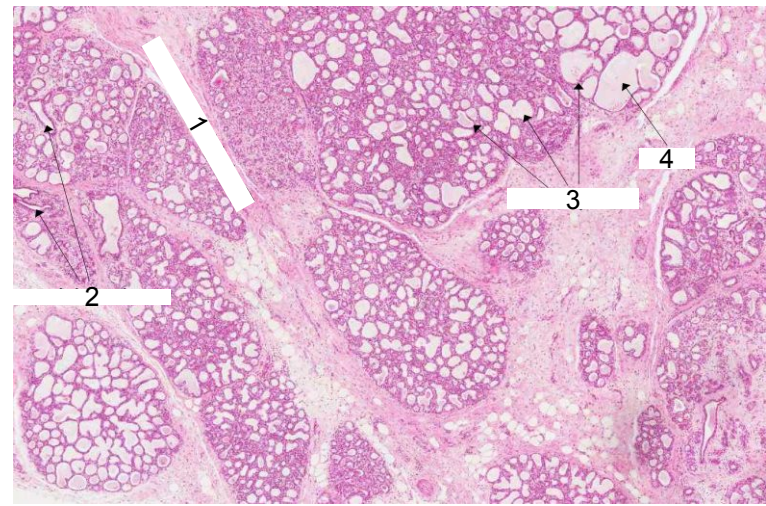
Lactating mammary gland

Q2/ What are the features of the structure?

1. Reduced interlobular and intralobular CT
2. Secretory alveoli
3. Intralobular ducts
4. Simple cuboidal epithelium
5. Acidophilic milk secretion with vacuoles.

★ **Q3/ Identify the labels?**

- 1- Reduced interlobular CT
- 2-Intralobular ducts
- 3-Secretory alveoli “which contain the milk”
- 4- Milk “pink stained inside the alveoli”
- 5- Interlobular CT
- 6- vacuoles “dissolved fat inside the milk”
- 7- Simple cuboidal epithelium



★ Q1/ Identify the structure?

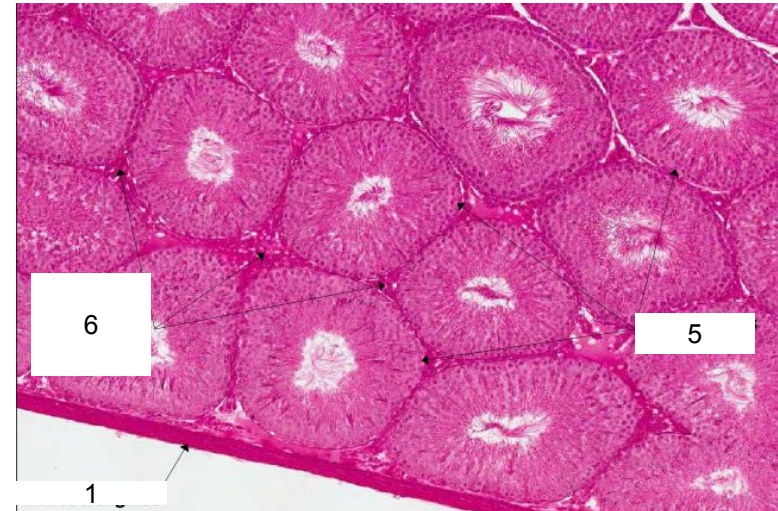
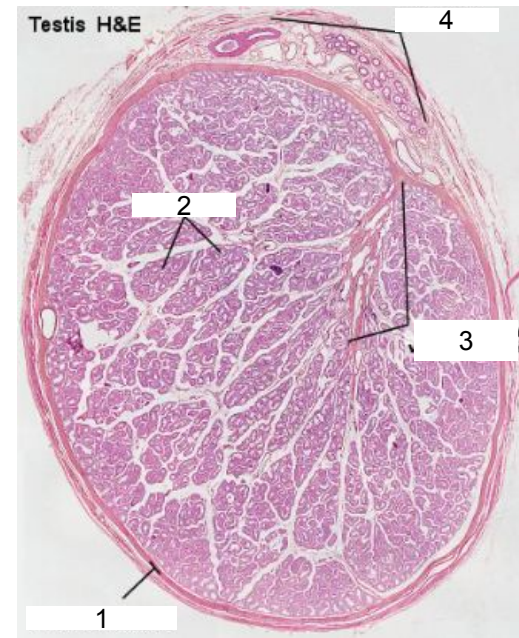
Testis

Q2/ What are the features of the structure?

1. Tunica albuginea
2. **Many** Seminiferous tubules
3. Spermatogenic cells (spermatogonia, primary spermatocytes, secondary spermatocytes, spermatids, spermatozoa)
4. Sertoli cells
5. Interstitial tissue with interstitial cells of Leydig.

★ Q3/ Identify the labels?

- 1-Tunica albuginea
- 2- lobuli testis
- 3- mediastinum of rete testis
- 4- Epididymis
- 5- Seminiferous tubules
- 6-Interstitial tissue with interstitial cells of Leydig “**between seminiferous tubules**”



★ **Q1/ Identify the structure?**

Testis - spermatogenic epithelium

Q2/ What does this structure composed of?

The seminiferous tubule: thick wall, and narrow lumen, with Few Sertoli cells scattered between the spermatogenic cells.

Interstitial cells of Leydig: large round or polygonal cells with indefinite cell outlines and with vesicular central round nuclei.

★ **Q3/ Identify the labels?**

1- Leydig cells

2- Smooth muscles (myoid cells) “surround the seminiferous tubules”

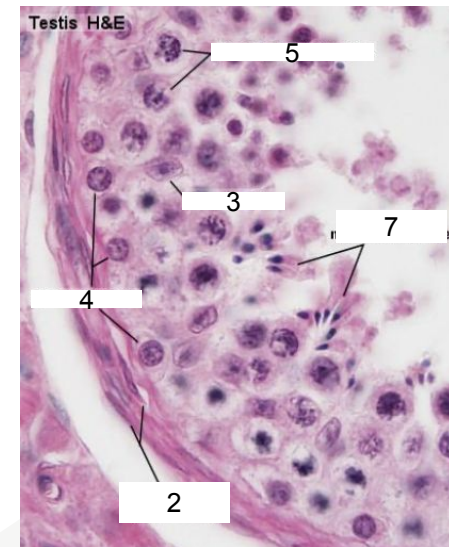
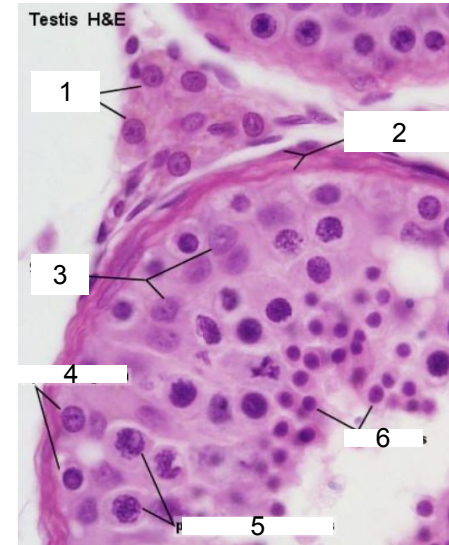
3- Sertoli cells “has pale nucleus with prominent nucleolus”

4- Spermatogonia “at the basement membrane”

5- Primary spermatocytes “Have larger cell & nuclei”

6- Spermatids “small in size”

7- Spermatids as they transformed into spermatozoa “maturation phase”



★ **Q1/ Identify the structure?**

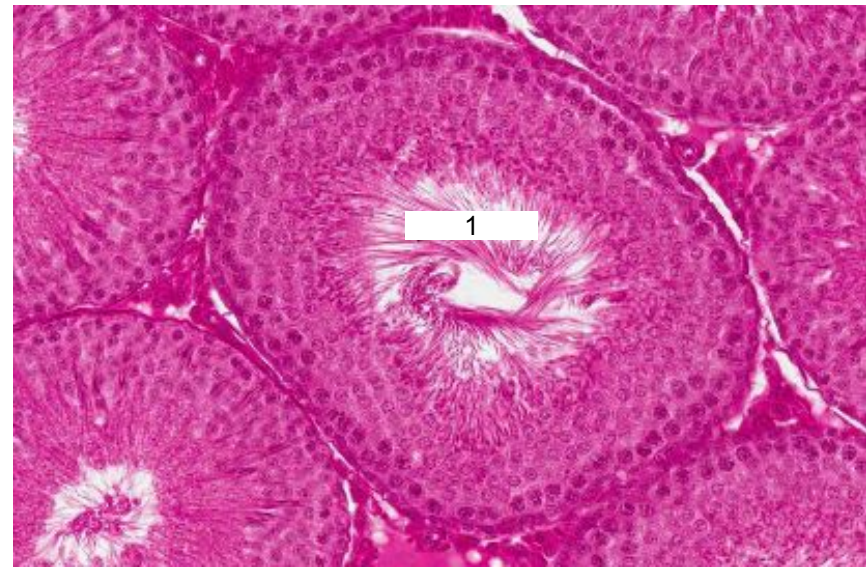
Testis - seminiferous tubules

Q2/ What are the features of the structure?

1. Tunica albuginea
2. Seminiferous tubules
3. Spermatogenic cells (spermatogonia, primary spermatocytes, secondary spermatocytes, spermatids, spermatozoa)
4. Sertoli cells
5. Interstitial tissue with interstitial cells of Leydig.

★ **Q3/ Identify the labels?**

- 1- Spermatozoa



★ **Q1/ Identify the structures?**

Epididymis

Q2/ What does structure A consist of?

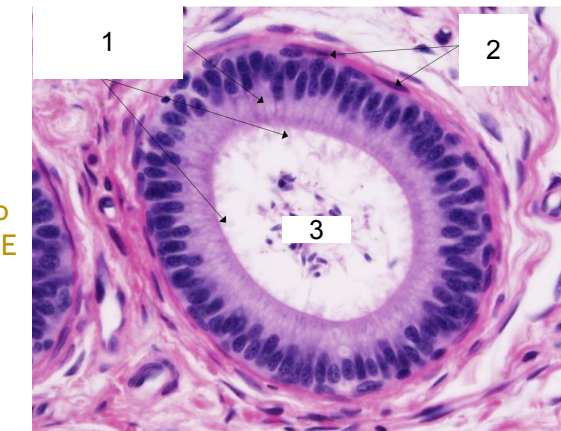
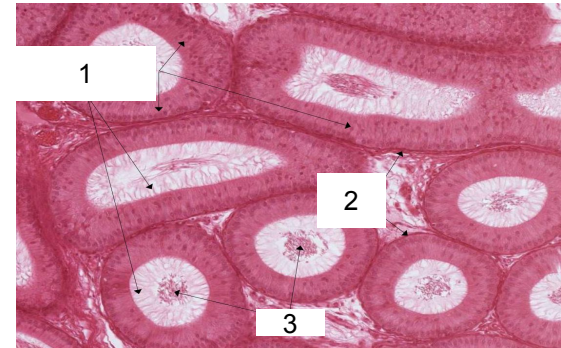
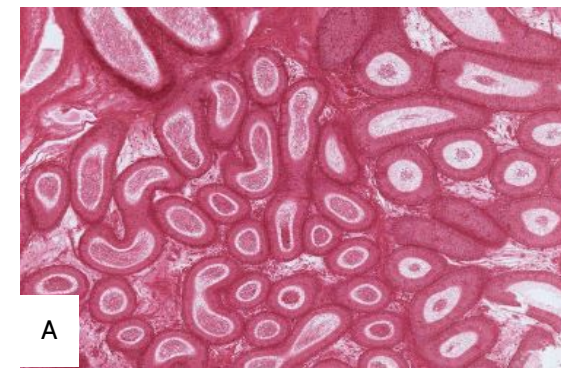
Thin wall and wide lumen

Q3/ What are the features of the structure?

1. Pseudostratified columnar epithelium with stereocilia
2. Smooth muscle fibers around the wall embedded in CT
3. Sperms in the lumen.

★ **Q4/ Identify the labels?**

- 1-Pseudostratified columnar epithelium with stereocilia
- 2- Smooth muscle fibers “surround the the epithelium’
- 3- Sperm



Female Dr: less likely to come as labels in OSPE

★ Q1/ Identify the structure?

Vas deferens

Q2/ What is the type of Epithelium covering this structure?

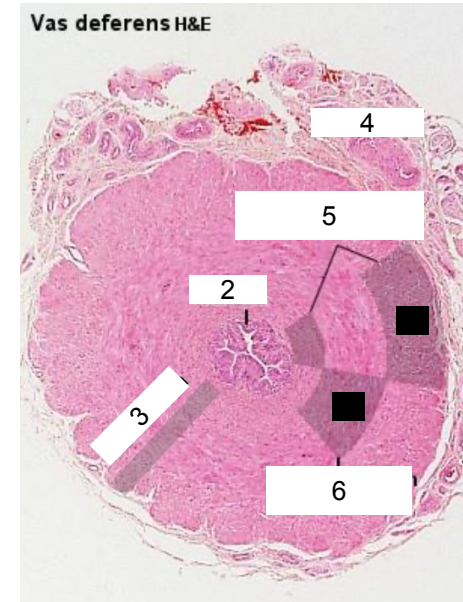
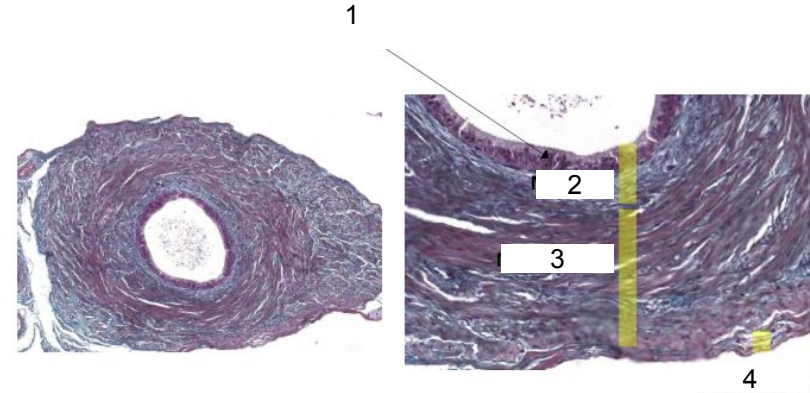
pseudostratified columnar epithelium with stereocilia

Q3/ What are the features of the structure?

1. Very thick wall
2. Very narrow lumen
3. Pseudostratified columnar epithelium with stereocilia
4. Very thick musculosa formed of three layers in LCL arrangement

★ Q4/ Identify the labels?

- 1- Pseudostratified columnar epithelium with stereocilia
- 2- Mucosa
- 3- Musculosa
- 4- Adventitia
- 5- Inner and outer longitudinal layer of smooth muscle
- 6- Middle circular layer of smooth muscle



★ Q1/ Identify the structure?

Prostate

Q2/ What is the type of Epithelium covering this structure?

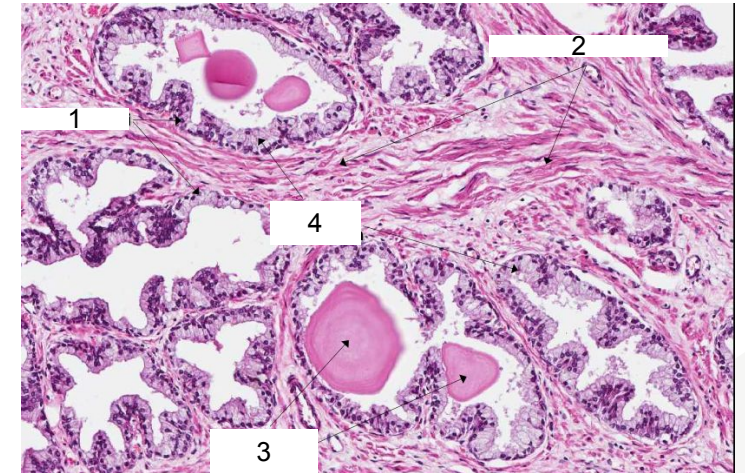
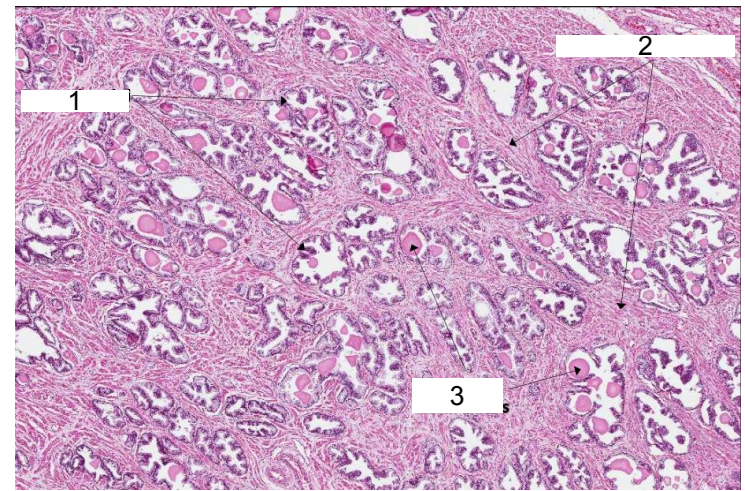
It varies from pseudostratified columnar to columnar or even cubical

Q3/ What are the features of the structure?

1. Fibromuscular stroma
2. Prostatic acini
3. Variable epithelium (from pseudostratified columnar to columnar or even cubical)
4. Prostatic concretions.

★ Q4/ Identify the labels?

- 1- Prostatic acini
- 2-Fibromuscular stroma
- 3- Prostatic concretion “**Corpora amylacea**”
- 4- Variable epithelium



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