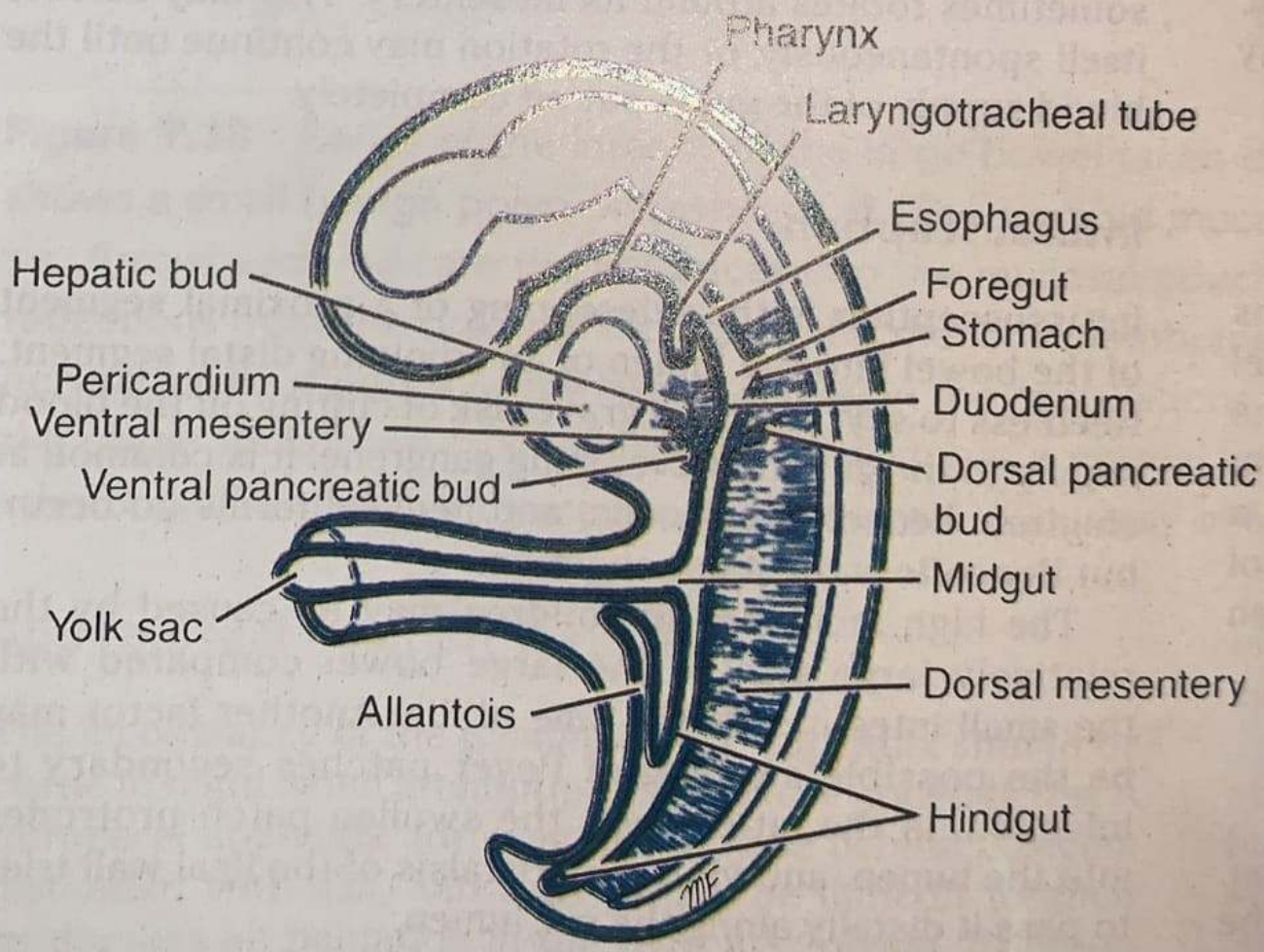
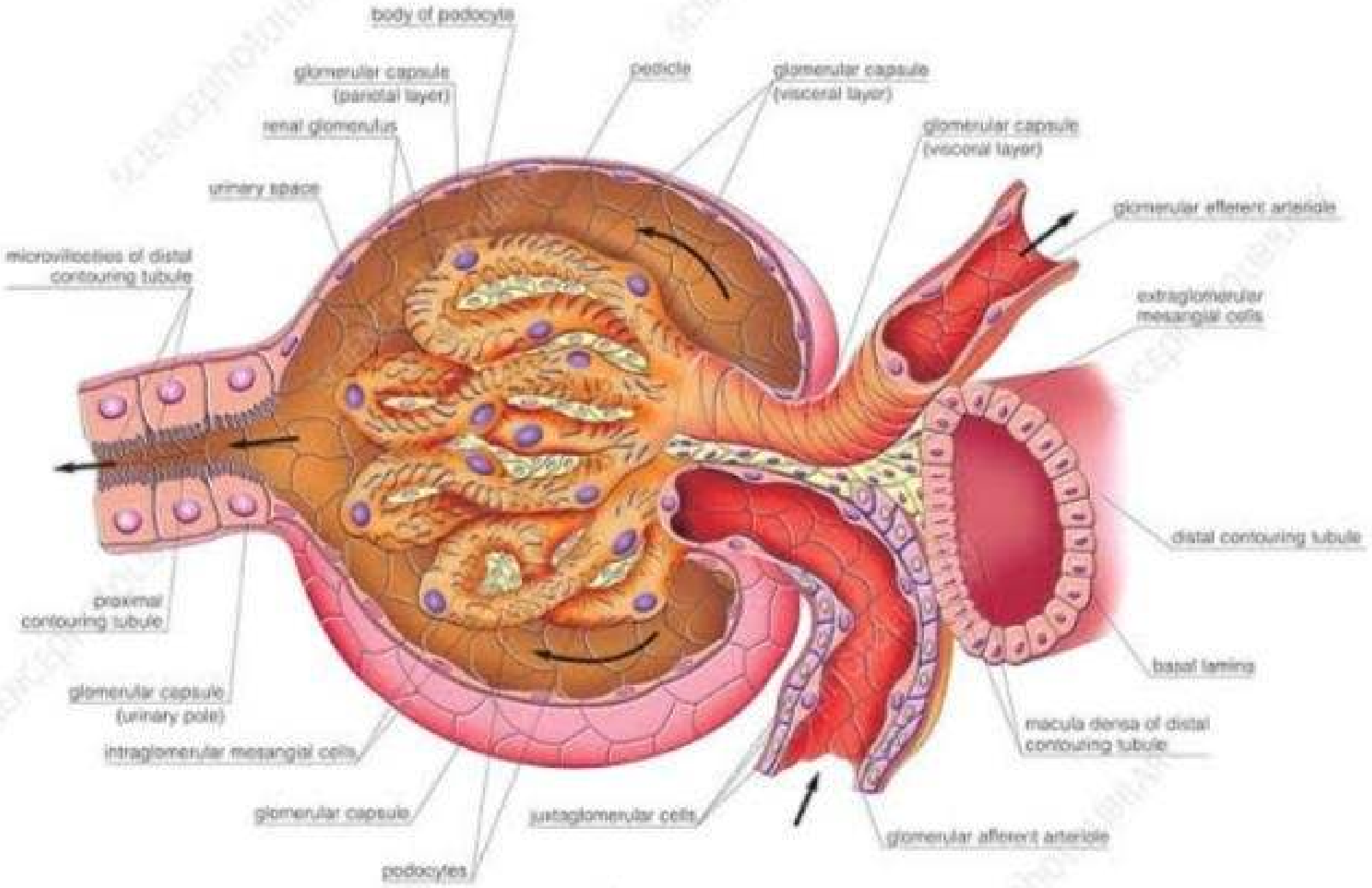
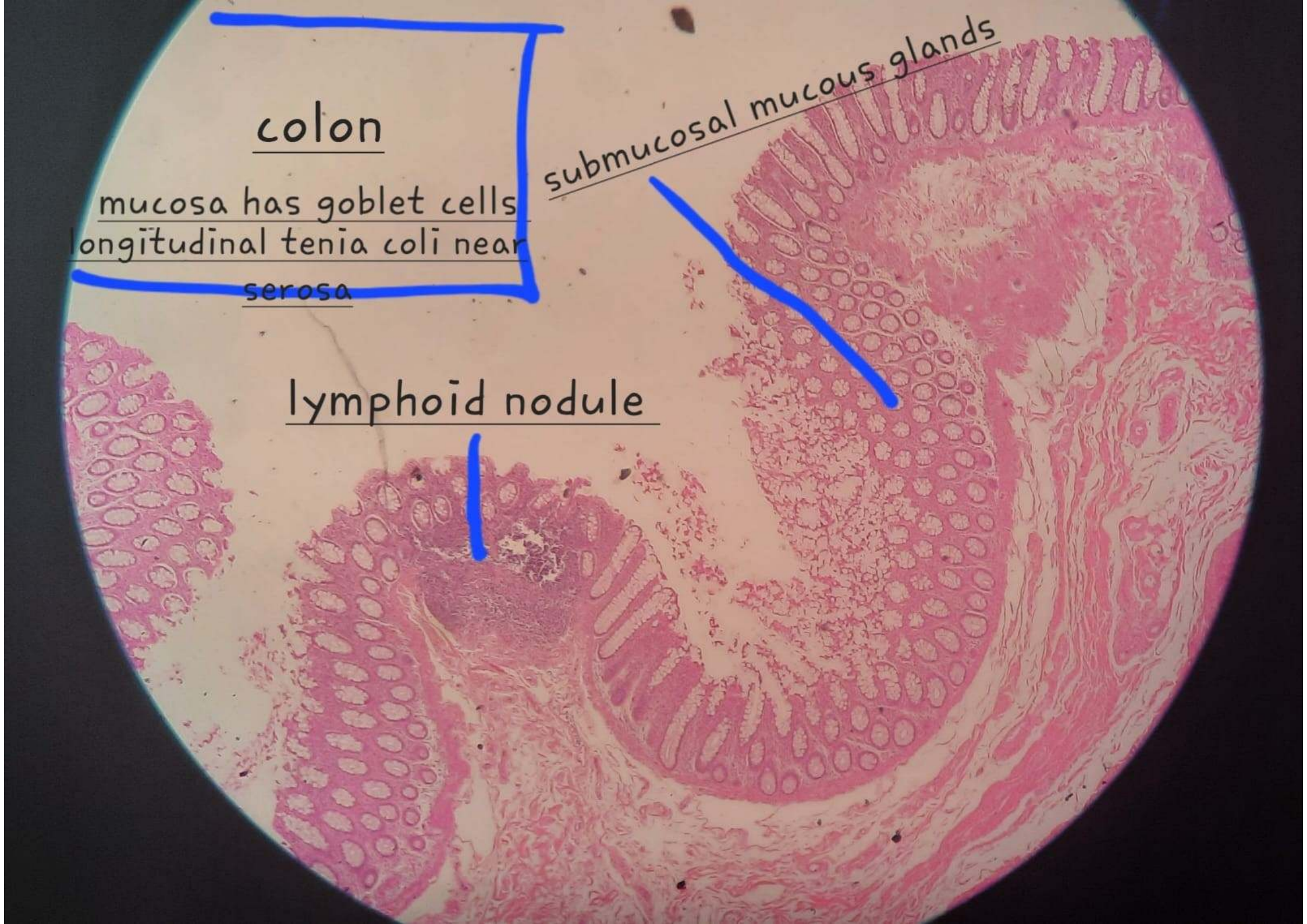
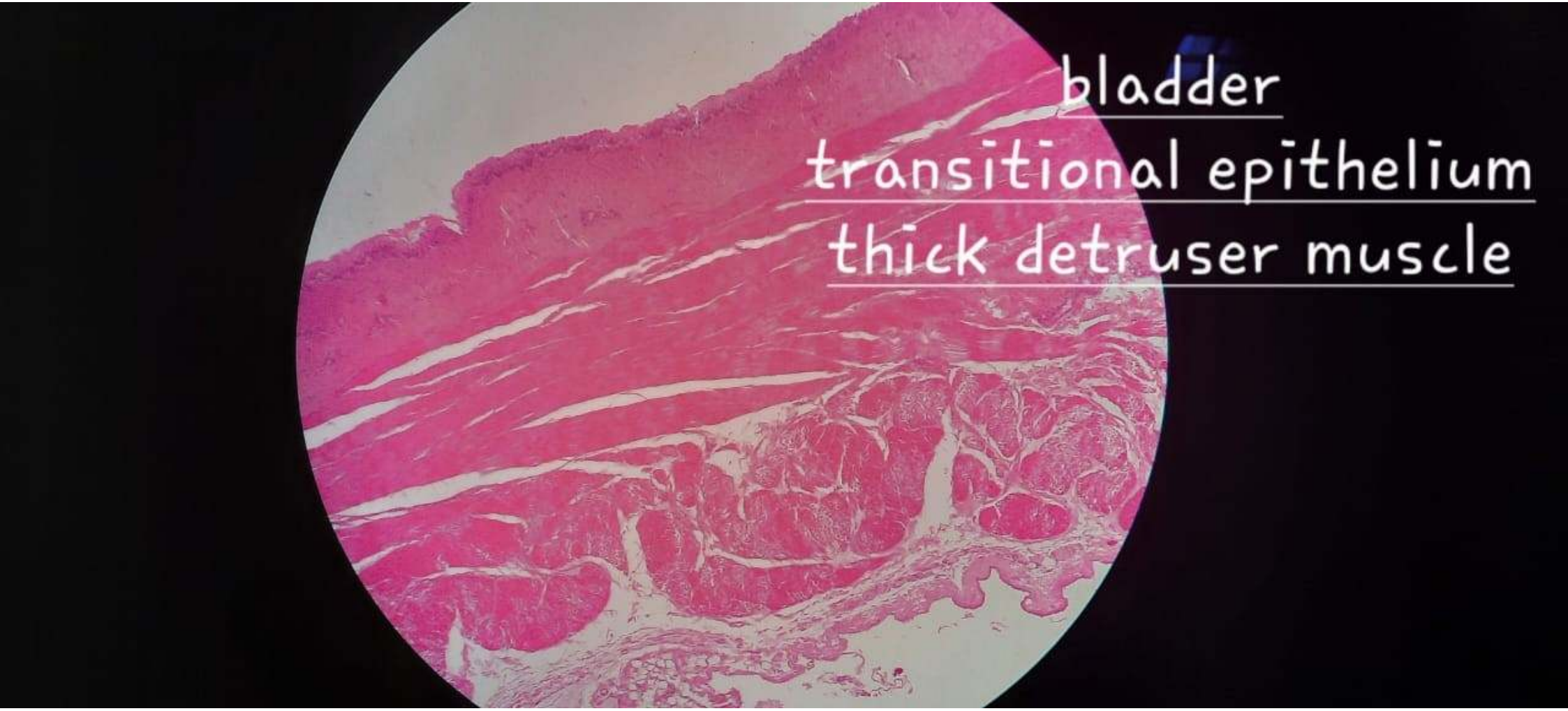
active growth takes place along the dorsal border, which becomes convex and forms the **greater curvature**. The anterior border becomes concave and forms the **lesser curvature**. The **fundus** appears as a dilatation at the upper end of the stomach. At this stage, the stomach has a right and left surface to which the **right and left vagus nerves** are attached, respectively. With the great growth of the right lobe of the liver, the stomach is gradually rotated to the right so that the

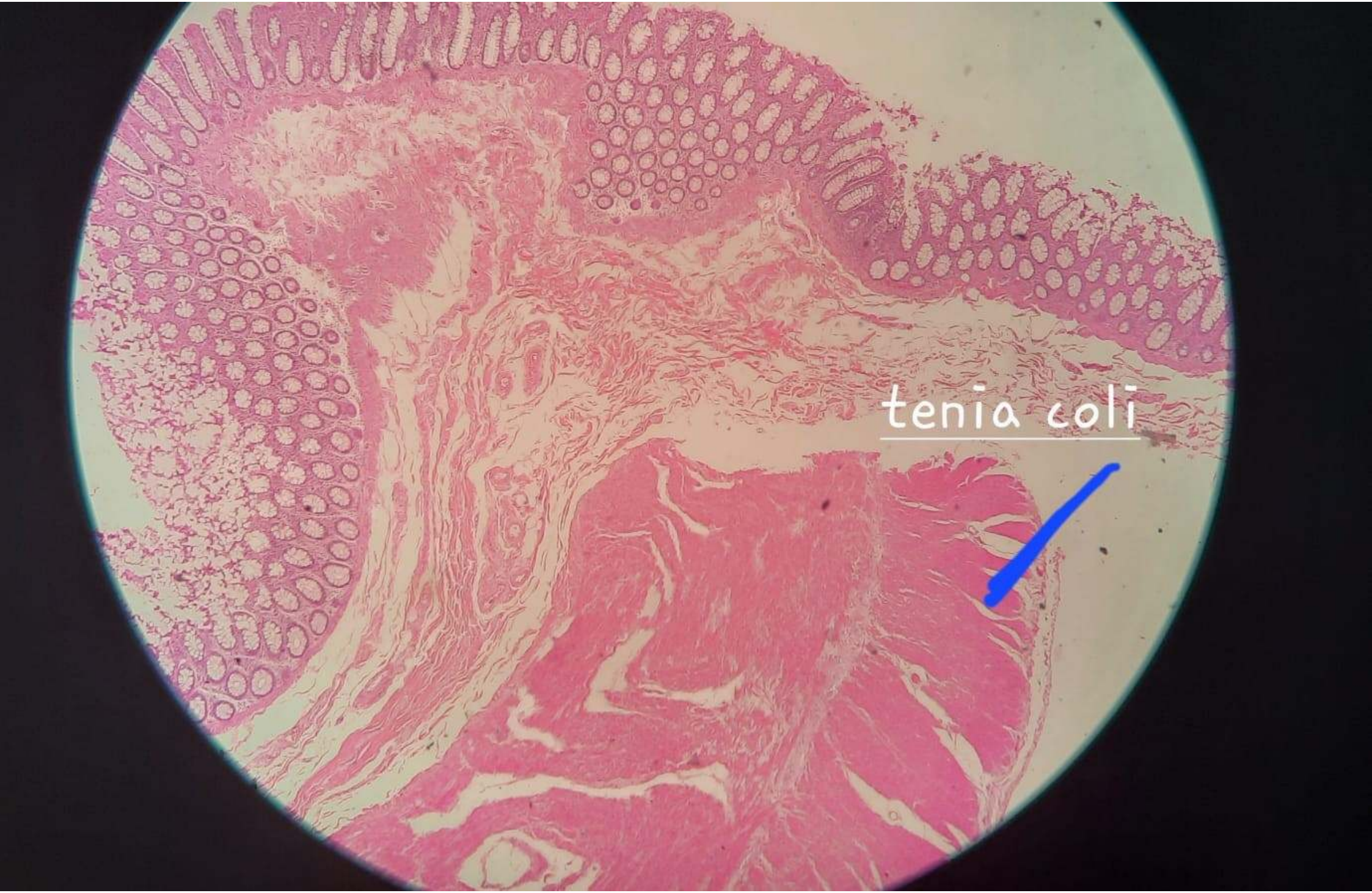



body of podocyte
glomerular capsule (parietal layer)
renal glomerulus
pedicle
glomerular capsule (visceral layer)
glomerular capsule (visceral layer)
urinary space
glomerular efferent arteriole
microvilloosities of distal contouring tubule
extraglomerular mesangial cells
distal contouring tubule
proximal contouring tubule
basal lamina
glomerular capsule (urinary pole)
macula densa of distal contouring tubule
intraglomerular mesangial cells
glomerular capsule
juxtaglomerular cells
glomerular afferent arteriole
podocytes


colon
mucosa has goblet cells
longitudinal tenia coli near serosa
submucosal mucous glands
lymphoid nodule


kidney
tubular structure
contains blood vessels in cortex so dark


bladder
transitional epithelium
thick detruser muscle

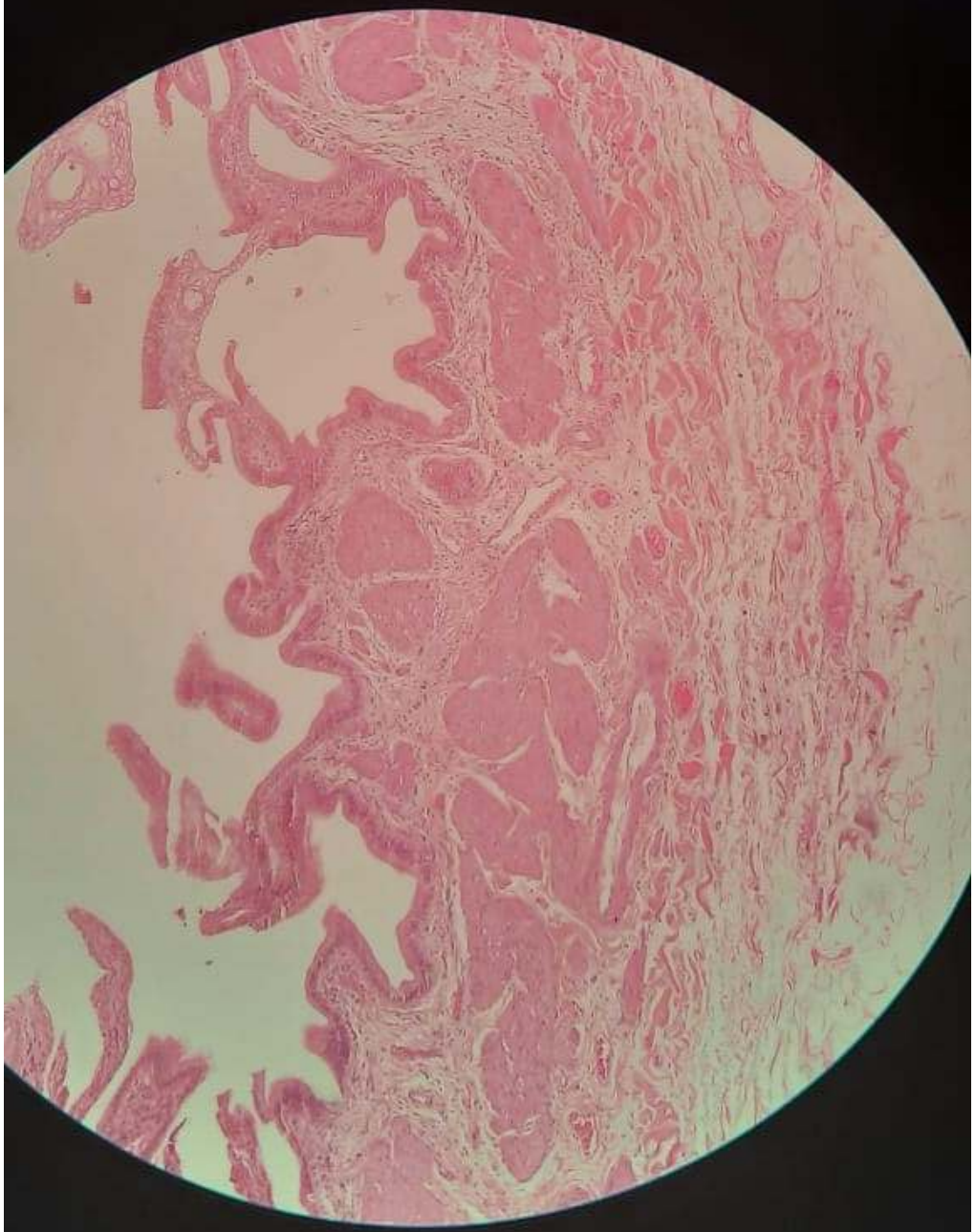

tenia coli

appendix

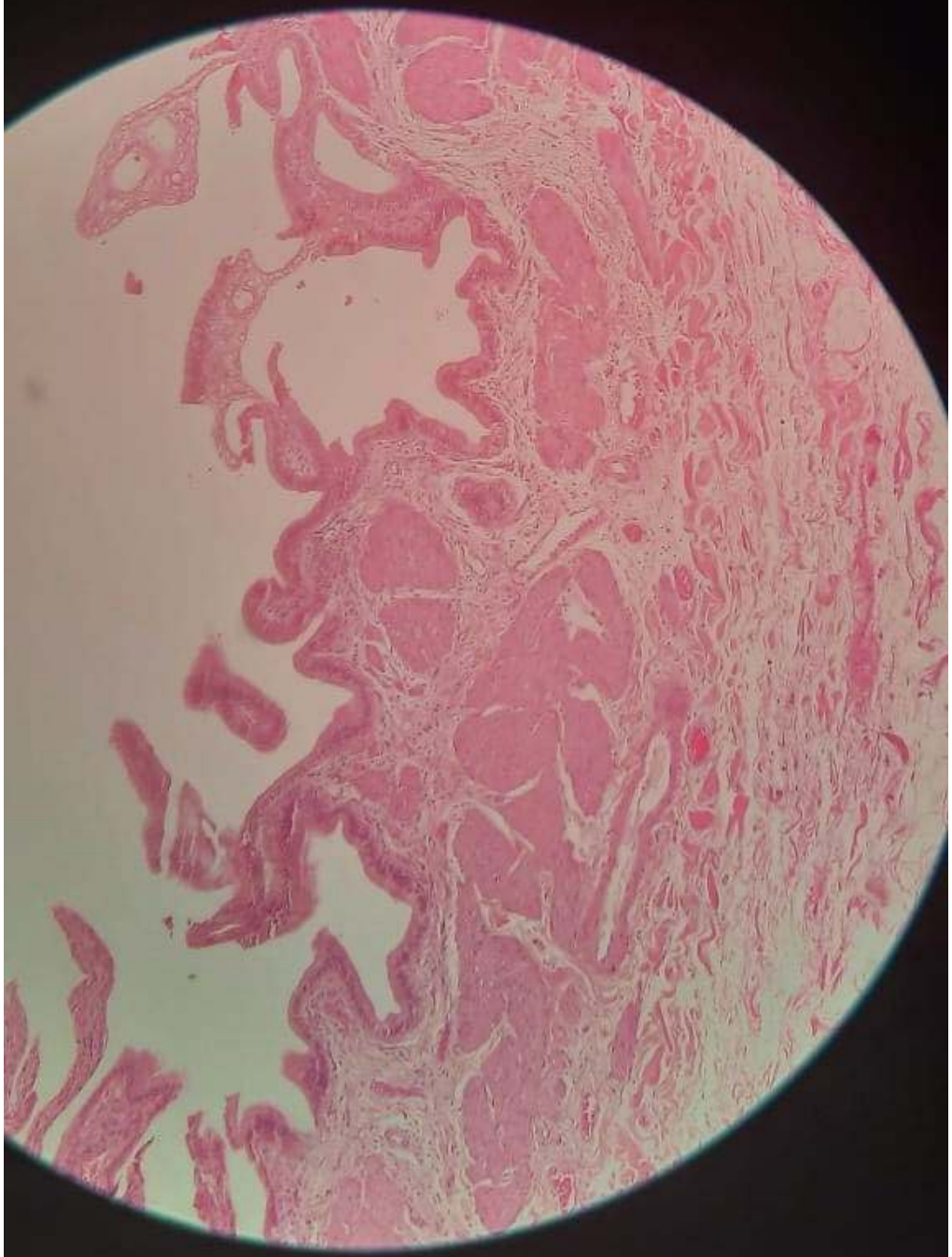

liver


liver high power
central vein
plates of hepatocytes
portal traid
sinusoids

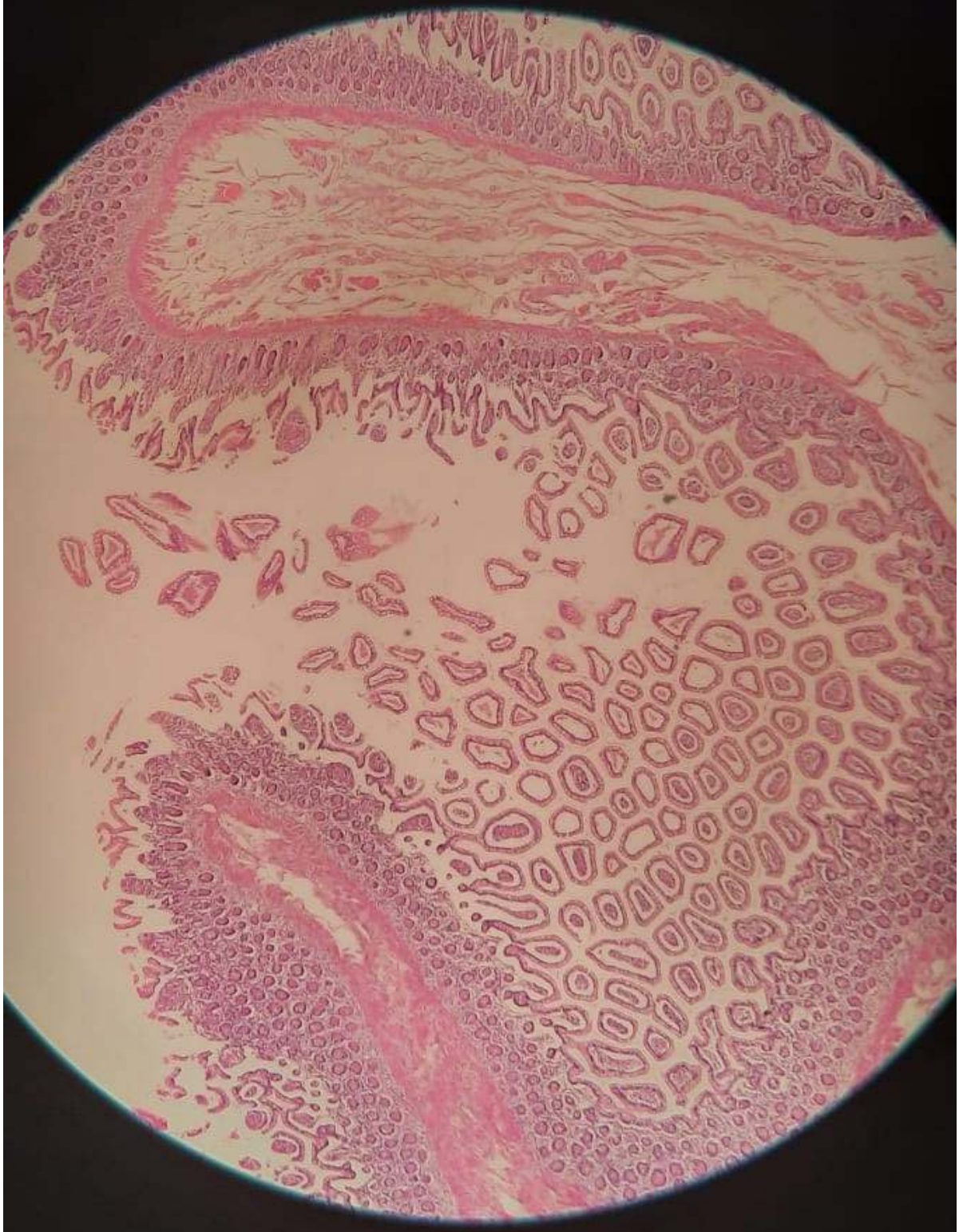
gall bladder
no submucosa, muscularis mucosae
mucosal folds
thin muscularis externa



gall bladder
simple columnar epithelium
no submucosa,muscularis
mucosae
mucosal folds
thin muscularis externa



jejunum
simple columnar
plica circularis of submucosal core
no peyer patches
no submucosal glands
only crypts and finger like villi



pancreas
CT septa
serous acinar cell
ducts and tubules
cubiodal cells make glands

jejunum


eosophagus upper part
submucosal glands
str. squamous epithelium
2 type of muscles
longitudinal folds

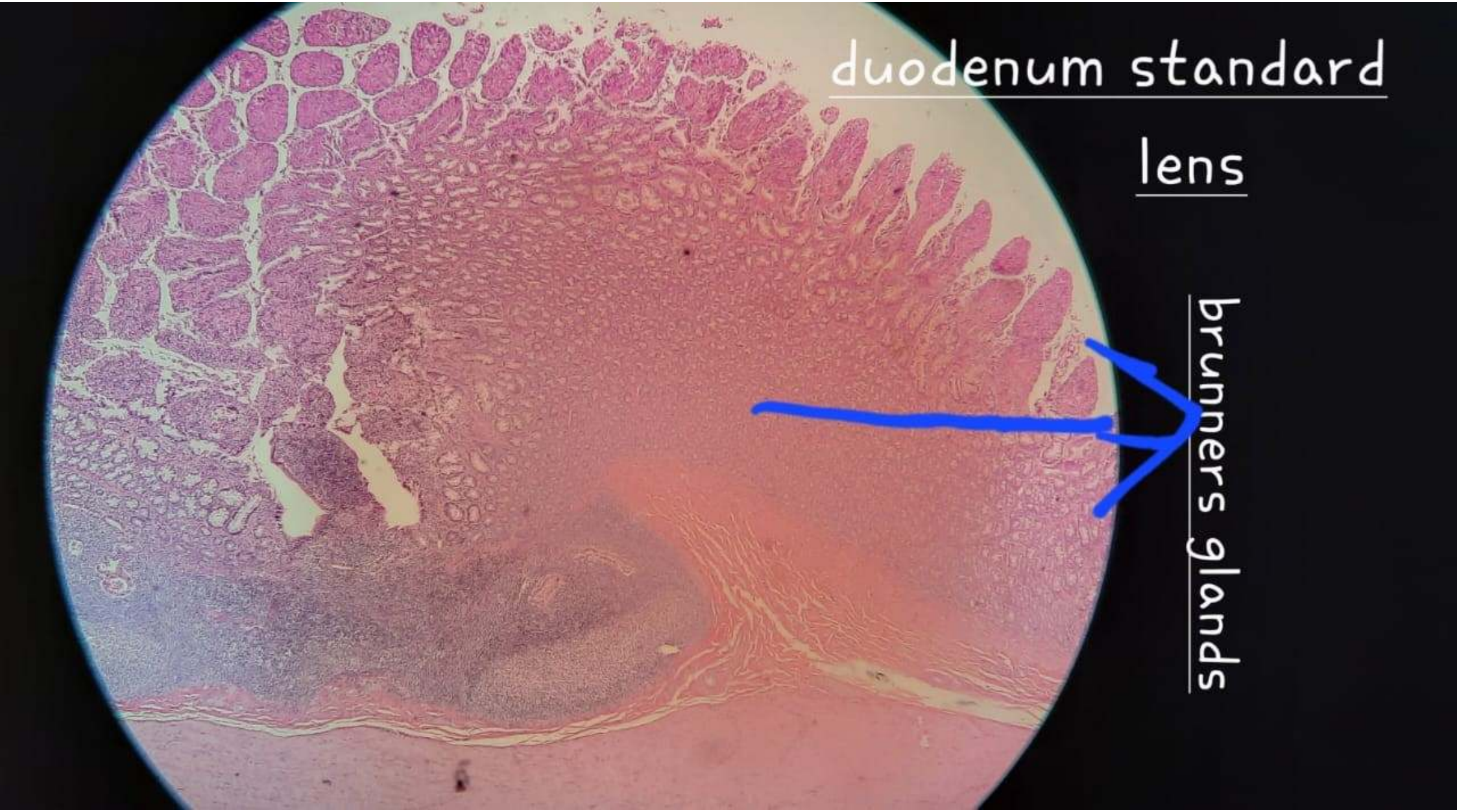
Fundus of stomach
simple columnar epithelium
shallow gastric pits
no submucosal glands

rugae


pylorus of stomach
deep gastric pits

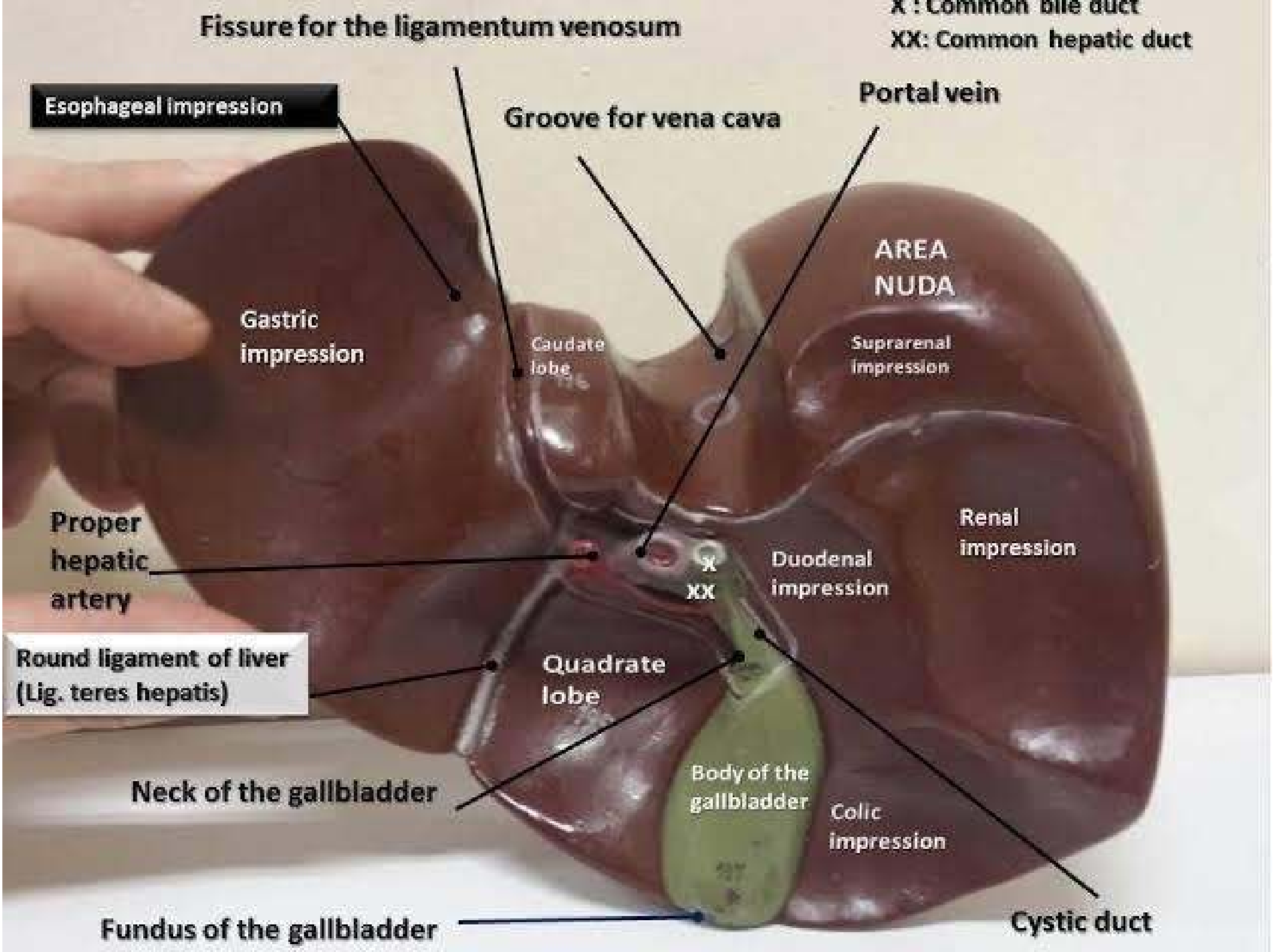
Title

Alkaline resrve
Kidney buffers
Anion gap
Alkaline tide
Hlc determination
Capit medusa
Etc
Oxidative and biological phosphorylation
Cheiosmotic theory .
Bmr
Milk curdling
Buffer systems
Hexokinase and glucokinase difference
Lactic acidosis types
Omenta
Mesentery
Gut supply
Lenia alba
Epiploic formen boundaries
Arties of greater curvature of stomach
Catheter
Serum bilirubin
Micturition relfex
Liver surfaces
Liver blood supply
Impressions
Cholesterol function
Cholesterol increase nd decrease vin which conditions


duodenum standard
lens
brunners glands


duodenum low power
submucosal
brunners glands

ileum standard power


Fissure for the ligamentum venosum
X : Common bile duct
XX: Common hepatic duct
Esophageal impression
Groove for vena cava
Portal vein
AREA NUDA
Gastric impression
Caudate lobe
Suprarenal impression
Proper hepatic artery
X
XX
Duodenal impression
Renal impression
Round ligament of liver (Lig. teres hepatis)
Quadrate lobe
Body of the gallbladder
Neck of the gallbladder
Colic impression
Fundus of the gallbladder
Cystic duct

Gastroesophageal Reflux Disease

- (**GERD**), also known as **acid reflux**
- Is a long term condition
- Where stomach contents come back up into the esophagus
- Resulting in either symptoms or complications.
- Symptoms include:
  The taste of acid in the back of the mouth, heartburn, bad breath, chest pain, vomiting.
- Complications include:
  Esophagitis esophageal strictures and Barrett's esophagus

Barrett's Oesophagus

- Sometimes called **Barrett syndrome**,
- Refers to an abnormal change (metaplasia) in the cells of the lower portion of the esophagus.
- It is characterized by the replacement of the normal stratified squamous epithelium lining of the esophagus by simple columnar epithelium

Barrett's Oesophagus

- Sometimes called **Barrett syndrome**,
- Refers to an abnormal change (metaplasia) in the cells of the lower portion of the esophagus.
- It is characterized by the replacement of the normal stratified squamous epithelium lining of the esophagus by simple columnar epithelium

21.	**Ureter**	• Star shaped small lumen • Transitional epithelium • No muscularis mucosa • Inner longitudinal and outer circular smooth muscles
22.	**Urinary bladder**	• Transitional epithelium • Thick lamina propria • Slide consists of a part of bladder wall, so lumen is not evident • Very thick (3 layered muscularis) • No glands, no submucosa
23.	**Testis**	• Tunica albuginea & tunica vasculosa • Seminiferous tubules with spermatozoa • Groups of Leydig cells
24.	**Ductus epididymis**	• Regular lumen • Pseudostratified epithelium with stereocilia • No fibromuscular stroma • No fibrosa
25.	**Ductus deferens**	• Irregular convoluted single lumen • Low columnar pseudostratified epithelium with stereocilia • Very thick 3 layered muscularis
26.	**Seminal vesicle**	• Highly convoluted lumen with crypts and cavities • Pseudostratified epithelium • Thin muscularis
27.	**Prostate**	• Fibromuscular true capsule • Prostatic acini (lined with simple columnar epithelium) with corpora amylacea • Fibromuscular stroma • Prostatic urethra
28.	**Ovary**	• Mesovarium • Ovarian follicles • Cortex and medulla
29.	**Fallopian tube**	• Fimbria • Mucosal folds lined by simple columnar ciliated epithelium • Layered muscularis in isthmus
30.	**Uterus**	• Simple columnar epithelium (partially ciliated) • Very broad lamina propria • Uterine glands in lamina propria • No submucosa • Very thick muscularis • Only one stage of menstrual cycle is evident

POINTS OF IDENTIFICATION

NO.	TISSUE	IDENTIFICATION POINTS
1.	**Tongue**	• Conical shaped • Lingual papilla • Muscularis-fasciculi of skeletal muscles • Anterior lingual glands • Lingual tonsil
2.	**Esophagus**	• Stratified squamous non-keratinized epithelium • Thickest muscularis mucosa • Longitudinal mucosal fold • Submucosal glands • Mixed skeletal and smooth muscles
3.	**Stomach-fundus & body**	• Typical shallow gastric pits (lined by simple columnar epithelium) • Long tubular glands in mucosa • Layers of muscularis externa • No submucosal glands
4.	**Stomach-pylorus**	• Longer gastric pits • Branched tubular glands in mucosa
5.	**Small intestine - duodenum**	• Leaf-shaped villi with microvilli • Brunner (submucous) glands • Less number of goblet cells
6.	**Small intestine - Jejunum**	• Club-shaped or rounded villi with microvilli • Tallest valvulae • More goblet cells • No Brunner glands
7.	**Small intestine - Ileum**	• Club-shaped or rounded villi with microvilli • Peyers patches • Maximum goblet cells • Club shaped villi
8.	**Large intestine - colon**	• No villi • Taenia coli • Much more goblet cells
9.	**Large intestine - appendix**	• Constant mucosal folds • Ring of lymph nodules • No taenia coli • Fewer crypts • Indistinct muscularis mucosa

10.	**Large intestine - rectum**	• Temporary longitudinal and permanent transverse folds of mucosa and submucosa • Crypts of Liberkuhn - longest closest and lined by goblet cells • No taenia coli
11.	**Large intestine - anus**	• Squamo-columnar epithelial junction • Submucosal mucous glands
12.	**Parotid gland**	• Serous acini • Interlobular ducts • No serous demilunes • Striated ducts
13.	**Sublingual gland**	• No capsule • Mucous acini with few serous one • Few serous demilunes • No intercalated ducts
14.	**Submandibular gland**	• Mixed alveoli • Many serous demilunes • Shorter and narrower intercalated ducts • Numerous intralobular ducts
15.	**Pancreas**	• Pancreatic serous acini with obliterated lumen • Islets of Langerhan's
16.	**Liver**	• Hepatic lobule with • Central vein • Radiating plats of hepatocytes • Hepatic sinusoids
17.	**Gall bladder**	• Mucosal folds • No muscularis mucosa • Fibromuscular layer • Perimuscular layer • Absence of goblet cells and crypts of Liberkuhn
18.	**Trachea**	• Pseudostratified ciliated columnar epithelium • C-shaped hyaline cartilage • Trachealis muscle • Tracheal glands
19.	**Lung**	• Serosa • Alveoli (lined by simple squamous epithelium) • Bronchioles, and bronchi
20.	**Kidney**	• Cortex contains glomeruli, convoluted tubules and medullary rays • Medulla contains renal pyramid, loop of Henle and collecting tubule

31.	Vagina	• Stratified squamous non-keratinized epithelium • Very broad richly vascular lamina propria • No mucosal folds • No submucosa • No glands • Thick muscular layer with very vascular interstitial connective tissue
32.	Mammary gland - inactive state	• Much more connective tissue containing mostly fat cells • No alveoli • Cord like tubules • Indistinct ducts, lobes and lobules
33.	Mammary gland - pregnant state	• Alveoli present but empty • Relatively less connective tissue • Duct system developed • Well developed lobes and lobules
34.	Mammary gland (lactation state)	• Rich connective tissue stroma • Alveoli of various sizes and shapes • Alveoli full of secretions • Highly developed ducts
35.	Thyroid gland	• Characteristic follicles with pink colloid (lined by simple cuboidal epithelium) • Very thin interfollicular stroma with parafollicular cells • Numerous capillaries
36.	Parathyroid gland	• Anastomosing cords of chief cells • Oxynphil cells
37.	Pituitary gland	• Anterior lobe - cords of glandular cells separated by capillary sinusoids. Acidophils and basophils present • Posterior lobe - nerve fibers with capillaries • Pars intermedia - colloid filled vesicles
38.	Adrenal gland	• Peculiar zones of cortex (glomerulosa, fasciculate & reticulata) • Medulla; irregular groups of cells with prominent blood vessels especially small veins and venules
39.	Lacrimal gland	• Glandular acini • Columnar cells • Irregular outpouching of cells
40.	Cornea	• Five layers can be identified (stratified squamous epithelium, homogenous structureless Bowman's membrane, substantia propria, Desement's Membrane, simple low cuboidal endothelium) • No blood vessels
41.	Retina	• 10 layers can be recognized • Rods and cones • Pigment epithelium
42.	External Ear	• Elastic cartilage with perichondrium • Stratified squamous keratinized epithelium • Hair follicles • Sweat glands, sebaceous glands
43.	Olfactory mucosa	• Pseudo-stratified ciliated columnar epithelium • Mucous glands (Bowman's) in lamina propria