بِسْلَمِ الْحَمْدُ لِلَّهِ
2nd Year MBBS

Histology Slides with Identification Points

{By Muhammad Ramzan Ul Rehman}
Apendix

- Star shaped leumen
- Ring of lymph nodules
Colon

- Deep and closely packed crypts of liberkhun
- Taenia coli
- Much more goblet cells
Cornea

- Five layers can be identified
  - *Stratified squamous epithelium*
  - Homogenous Structureless Bownman’s membrane
  - *Substantia propria*
  - Desment’s Membrane
  - Simple low cuboidal endothelium
  
  *No Blood Vessels present.*

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Ductus Deferens

- Irregular Convoluted single lumen
- Low columnar pseudostratified epithelium with stereocilia
- Very thick (3 layered) muscularis
Duodenum

- Leaf-shaped villi with microvilli
- Brunner (submucous) glands
- Less number of goblet cells
Epididymus

- Regular lumen
- Pseudostratified epithelium with stereocilia
- Epithelium surrounded by thin layer of smooth muscle
Esophagus

- Stratified squamous non keratinized epithelium
- Submucosal glands
- Mixed skeletal and smooth muscles
Gall Bladder

- Mucosal folds
- Tall columnar cells on
- Surface absence of goblet cells and crypts of Liberkuhn
Ileum

- Presence of Peyer’s patches
- Maximum goblet cells seen
- Presence Club shaped villi
Jejunum

- Cylindrical villi
- Paneth cells
- No Brunner glands
Kidney

- Renal corpuscle
- Proximal tubule
- Loop of henle
Lip

- Dermal Papillae along the foldings
- Stratum Lucidium forming the Red Area of the lip
- Labial Salivary glands
- Mucosal surface
Liver

- Hepatic lobule with central vein
- Radiating plates of hepatocytes
- Portal area
LUNG

- Serosa
- Alveoli (lined by simple squamous epithelium)
- Interalveolar septum
Mammary Gland

- Alveoli lined by simple cuboidal epithelium
- Developed Lactiferous ducts
- Alveoli of various shapes and sizes
Ovary

- Mesovarium
- ovum
- Ovarian Follicles
- Follicular antrum
Pancreas

- Pancreatic serious acini with obliterated lumen
- Islets of Langerham
Parotid gland

- Serious Acini
- No serious demilunes
- Intercalated ducts
Penis

- Corpus Cavernous
- Corpus spongiosus
- Deep artery of Penis
Elastic cartilage with perichondrium
Stratified squamous keratinized epithelium
Hair follicles
Sweat glands, sebaceous glands
Pituitary Gland

- Chromphobes.
- Chromophils.
Prostate Gland

- Alveoli lined by three types of Epithelium
- corpora amylacea
- Prostatic urethra
Retina

- 10 layers can be recognized
- Rods and cones
- Pigment epithelium
- Outer and inner nuclear layer
Seminal Vesicle

- Highly convoluted lumen with crypts and cavities
- Pseudostratified epithelium
- P, S & T folds
Stomach

- Gastric pit is prominent along the epithelium
- Long tubular glands in mucosa
- Dispersed smooth muscles in muscularis externa
Sublingual gland

- Mucous acini
- Mucous acini with few serious one
- Few serious demilunes
- No Intercalated ducts
Submandibular gland

- Mixed alveoli
  - Serous acini
  - Mucous acini
- Many serious demilunes
- Shorter and narrower intercalated ducts
Suprarenal gland

- Pyramidal cells arranged in Rounded clusters – Called Glomerulus
- Three zones visible in cortex
  - Glomerulosa
  - Fasciculata
  - Reticularis
Testis

- Seminiferous tubules with spermatozoa
- Groups of Leydig cells
- Sertoli cells
Thyroid Gland

- Characteristic follicles with pink colloid or Thyroid follicle.
- Very thin interfollicular stroma with parafollicular cells.
Tongue

- Anterior lingual glands
- Philiform papillae
- Fungiform papillae
Trachea

- Pseudostratified ciliated columnar epithelium
- C-shaped hyaline cartilage
ureter

- Star Shaped small lumen
- Translational Epithelium
- Inner longitudinal and outer circular smooth muscles
Urinary Bladder

- Transitional epithelium
- Thick lamina propria
- Very thick (3 layered) Muscularis
- No glands, no submucosa
Uterine Tube

- Zona compacta
- Zona spongiosa
- Mucosal folds lined by simple columnar ciliated epithelium
Uterus

- Zonal compacta
- Zona spongiosa
- Uterine glands in lamina propria
Vagina

- Stratified squamous non-keratinized epithelium
- Lymphatic infiltrations of lower part of epithelium
- No Mucosal folds, glands and sub mucosa
Para Thyroid Gland

- Presence of Chief cells
- Presence of oxyntic cells
Thank you

BY.

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