

Pancreas

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Pancreas

- A mixed exocrine and endocrine gland.
- Major part is made up of exocrine gland.
- A thin connective tissue sends in septa that divide into lobules.
- Blood vessels, nerves and ducts travel in the connective tissue septa.

Exocrine Pancreas

- Is purely serous gland of compound tubuloacinar.
- The secretory units of exocrine pancreas consist of serous cell.
- The basal region of cell stain basophilic and the apical region contains zymogen granules which stain acidophilic.
- The centroacinar cells are found close to the apical part of serous cells and represent the initial segment of intercalated duct.

Duct System

Consist of

❖ Intercalated ducts

❖ Intralobular ducts

❖ Interlobular ducts

❖ Main ducts

➤ The intercalated ducts begins within the center of the acinus, are seen as pale staining ,low cuboidal cells are called centroacinar cells.

- Several intercalated ducts form intralobular ducts which converge to form interlobular ducts that run in the interlobular connective tissue.
- Both the intralobular and interlobular ducts are lined by a simple low columnar epithelium.
- Main pancreatic duct is lined by stratified columnar epithelium.

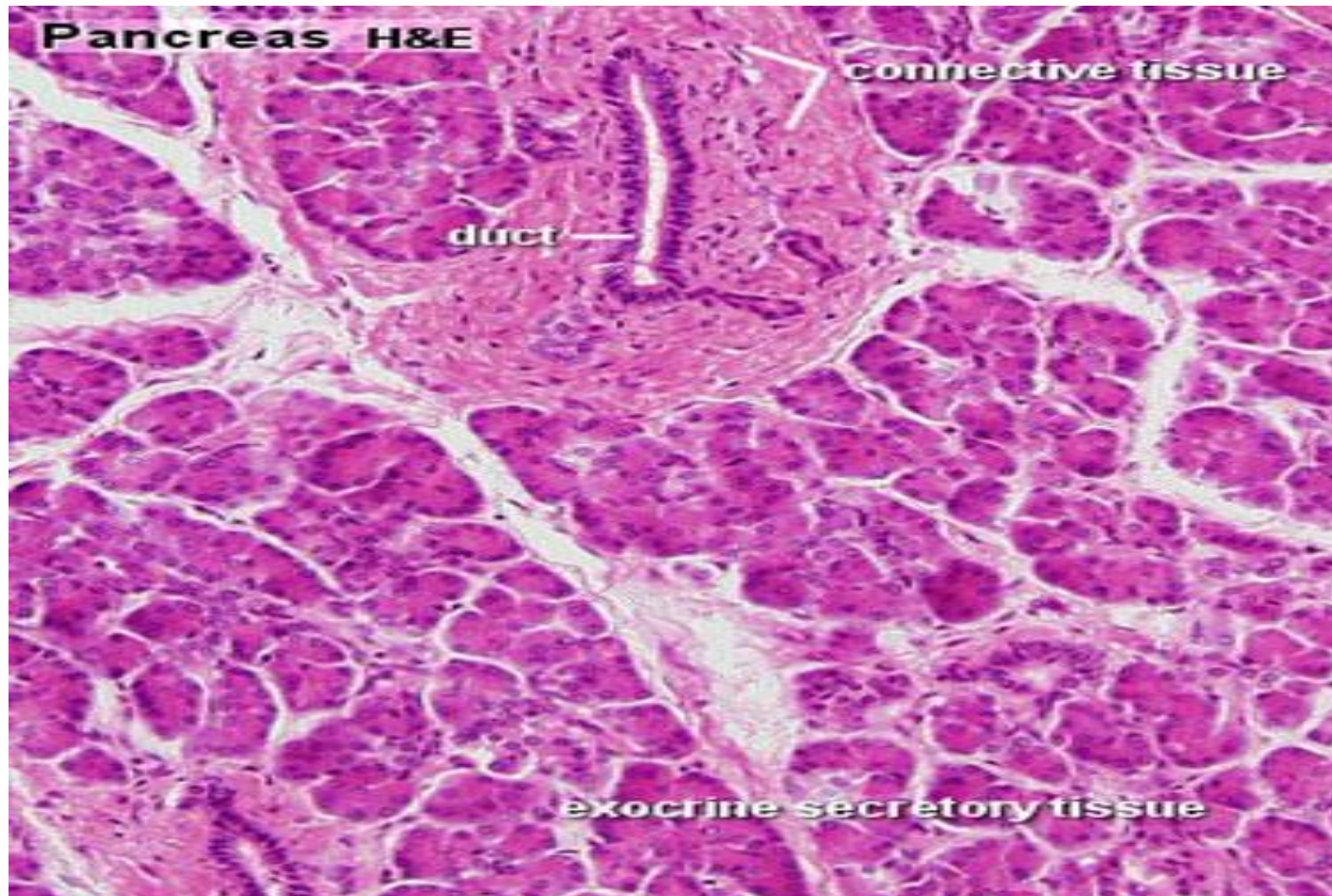
Endocrine Pancreas

- It consist of small, spherical cluster of cells called Islets of Langerhans or pancreatic islets.
- The islets of langerhans are present randomly among the serous acini of pancreas.
- A thin layer of connective tissue surrounds each pancreatic islet, separating it from the exocrine part.

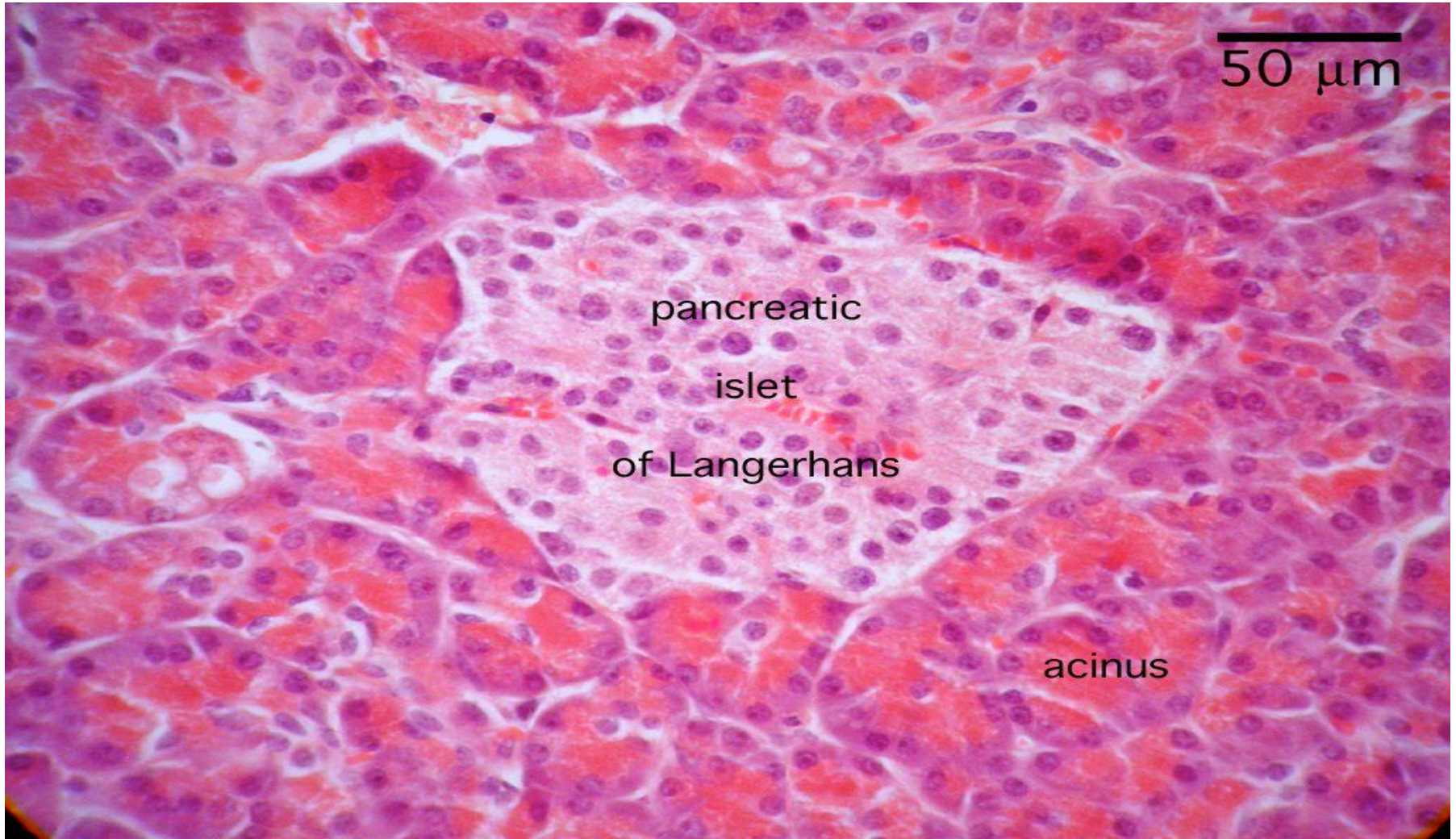
- The islet cells are arranged in short , irregular cords separated by a network of fenestrated capillaries.
- In H&E stain, the cells of islet appear lightly eosinophilic.
- The pancreatic islet cells are classified into three major types.
 - ❖ A cells
 - ❖ B cells
 - ❖ D cells.

- The A cells produce glucagon
- The B cells are predominant, making up about 70% of the islet mass ; they produce Insulin.
- The D cells produce somatostatin.

Exocrine Pancreas



Islet of Langerhans



Pancreas

