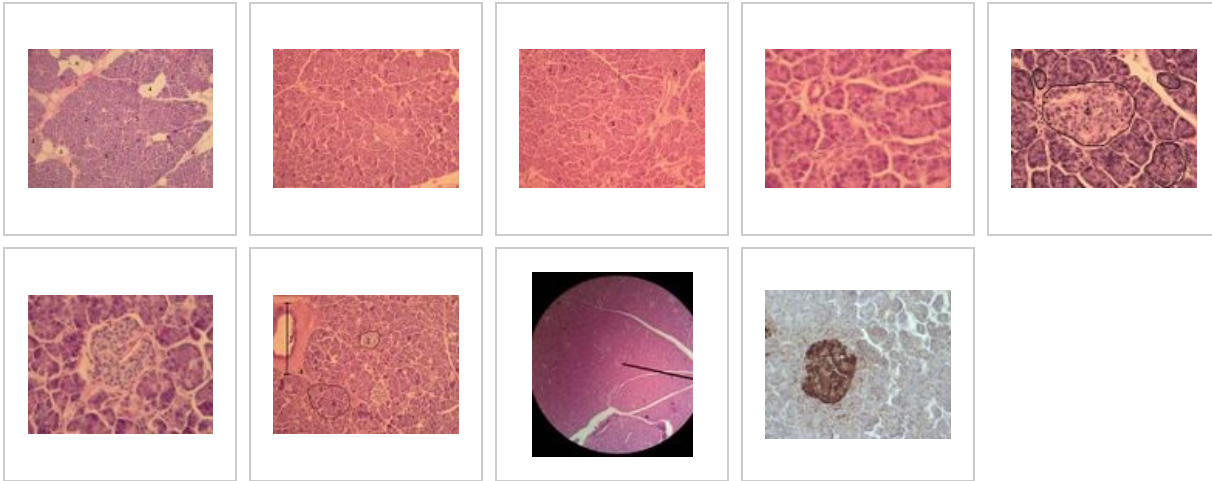


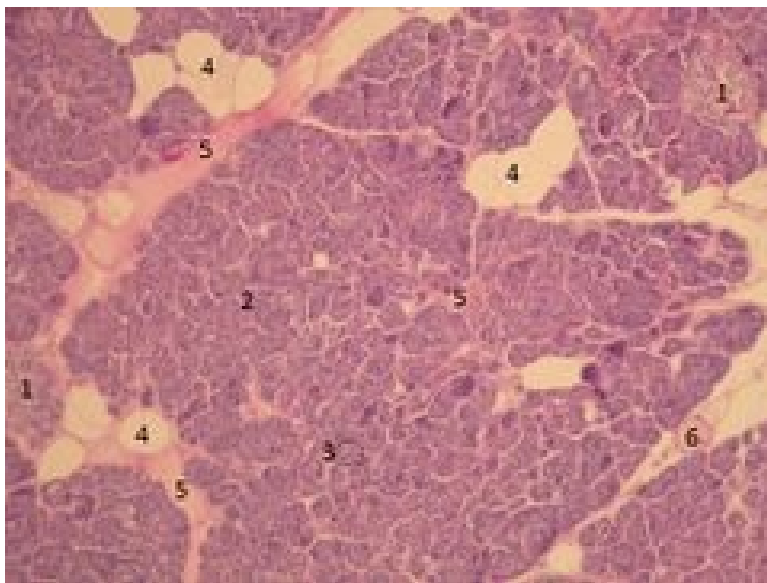
Pancreas (preparation)

Pancreas B12

Overview



Preparation 1

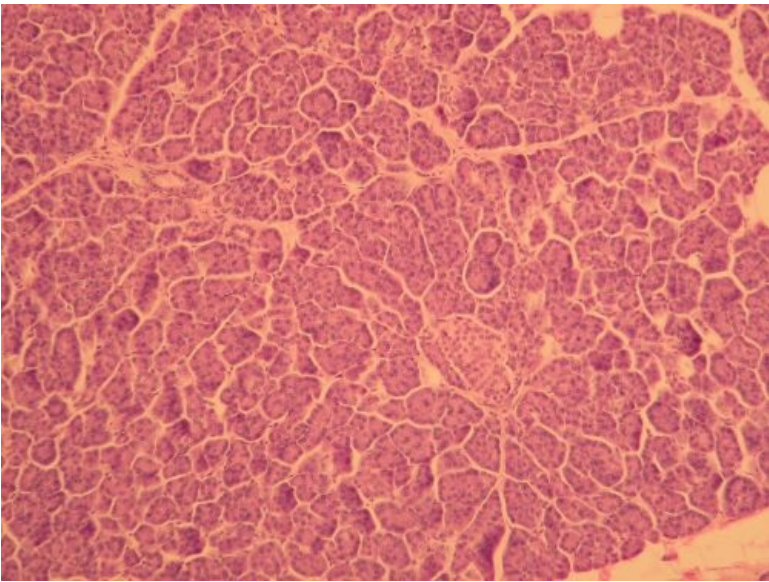


Name: Pancreas (HE)

Description: Pancreas is a gland composed of exocrine, acinous, serous and endocrine glands islets of Langerhans. Duct system of exocrine gland begins inside acinus as centroacinous cells, continues as inserted ducts. Further, intralobular, interlobular, lobar and main outlets follow. Except for the inserted ducts, which are lined by a single-layered squamous epithelium, all other ducts are lined by a single-layered cylindrical epithelium, whose cells can produce mucus.

1 - Islets of Langerhans; **2** - acini, forming the secretory part of the exocrine pancreas; **3** - one acinus; **4** - fat cells; **5** - ligament, fibrous septum; **6** - blood vessel (vein)

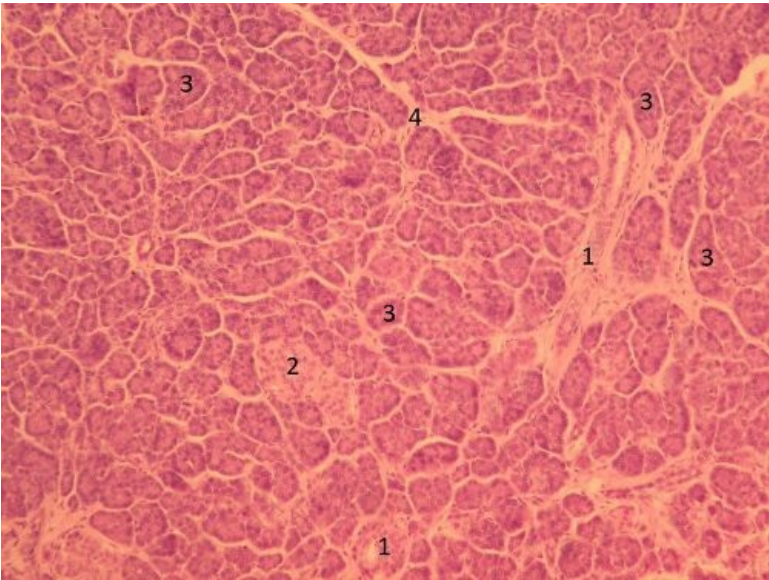
Preparation 2



Name: Pancreas (HE)

Description: In contrast to the parotid gland, we do not find annealed ducts in the pancreas. Exocrine tissue is made up of serous acini. Serous cells produce digestive enzymes (proteins) and their nuclei are round. Rough endoplasmic reticulum is very abundant in the basal part of the cell.

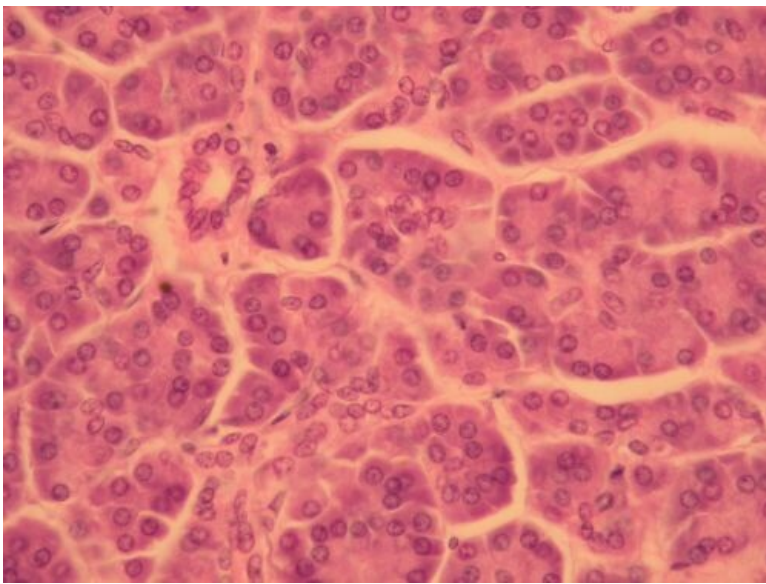
Preparation 3



Name: Pancreas (HE)

Description: **1** - intralobular ducts **2** - Islet of Langerhans **3** - acinus **4** - fibrous septum

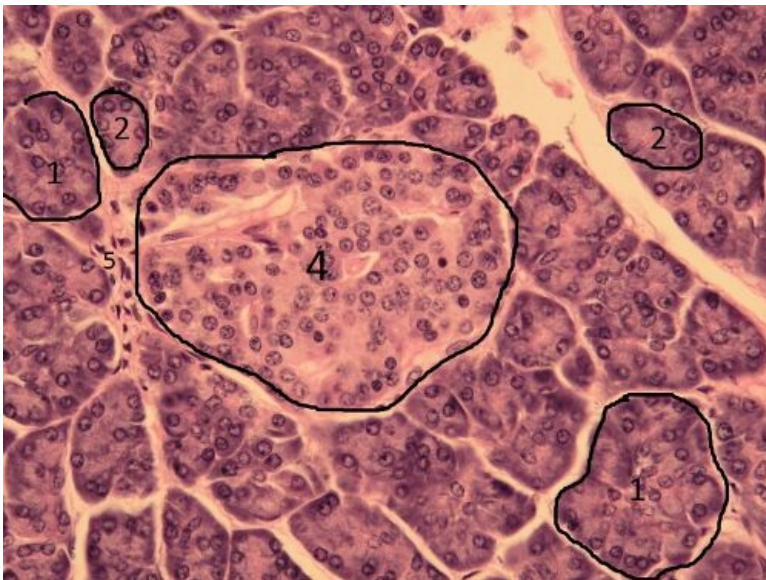
Preparation 4



Name: Pancreas (HE)

Description: An exocrine gland with an intralobular duct.

Preparatin 5

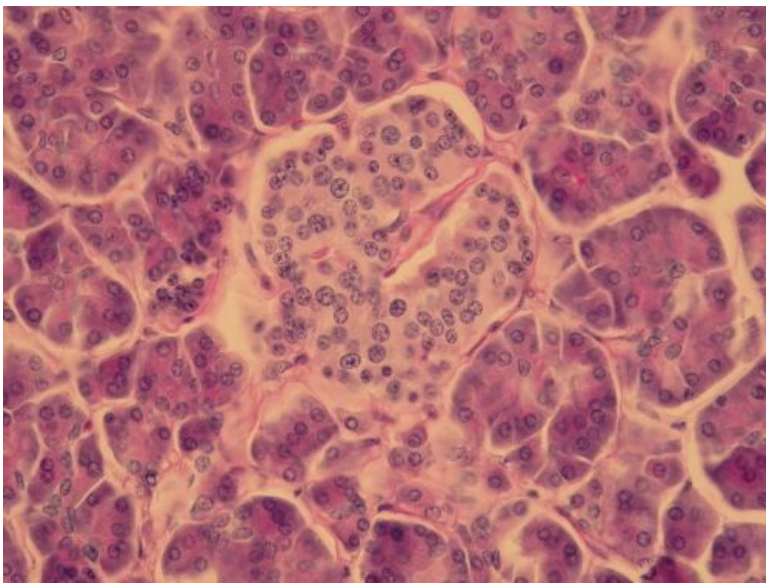


Name: Pancreas (HE)

Description: The endocrine cells of the islet of Langerhans are brighter than the exocrine cells. They are arranged in beams. The beam-like structure allows the cells to contact the blood vessels, into which they deliver their secretion (hormone). We can distinguish individual types of endocrine cells only by immunohistochemical hormone evidence or in electron microscope.

1 - lobules **2** - acinus **4** - Islet of Langerhans **5** - intralobular (inserted) outlet

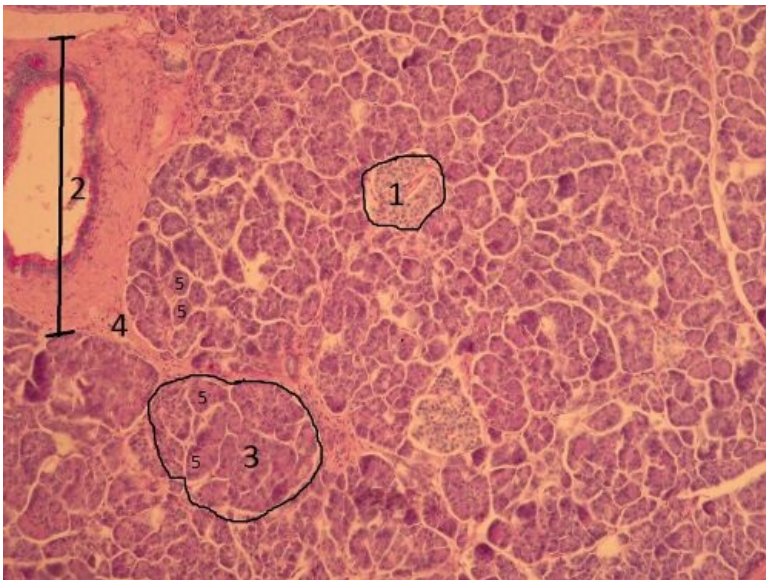
Preparation 6



Název: Pancreas (HE)

Description: Another islet of Langerhans.

Preparation 7

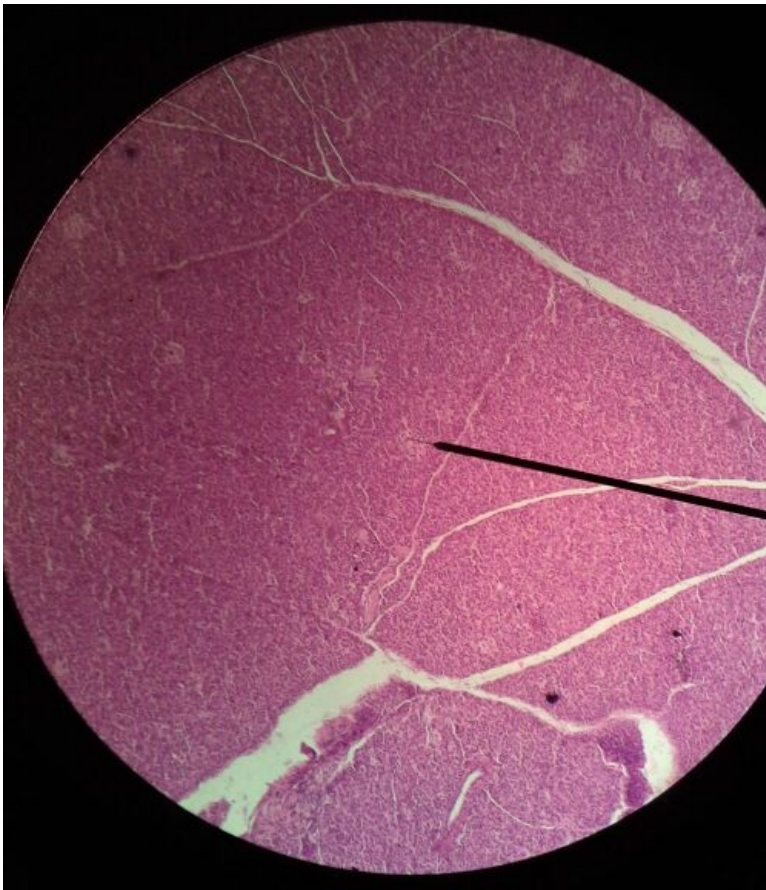


Name: Pancreas PAS + Hem

Description: Clear magnification: exocrine pancreas, islets of Langerhans (lighter), interlobular duct with single-layered columnar epithelium.

1 - Islet of Langerhans **2** - interlobular duct surrounded by ligament **3** - lobulus **5** - acinus

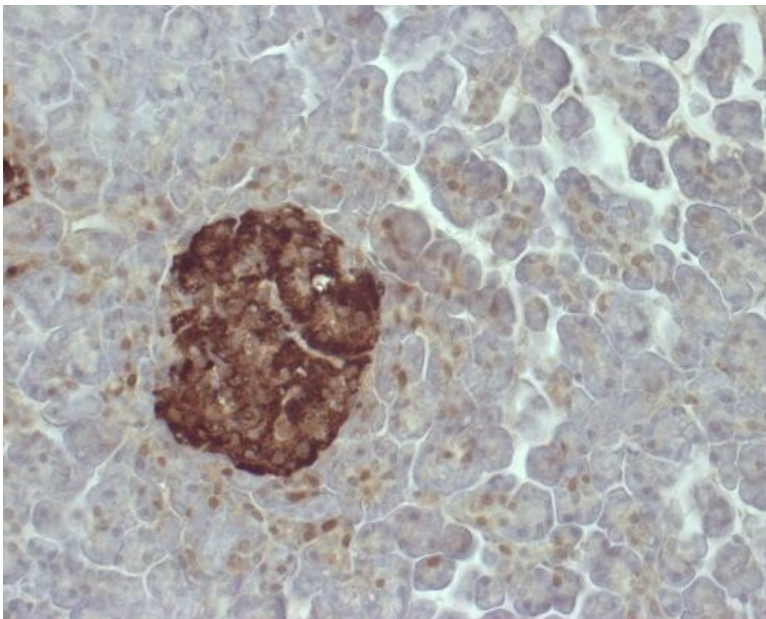
Preparation 8



Name: Pancreas (HE)

Description: Pancreas on clear magnification.

Preparation 9



Name: Pancreas - insulin - immunohistochemical evidence

Description: Hormones can be detected in tissue using immunohistochemistry (labeled antibodies). In the human islets of Langerhans, the cells that produce insulin predominate (B cells) - here brown. Other endocrine cells are interspersed between them - here lighter spaces between B cells

Epitels

- Muscle artery (preparation)
- Ren (preparation)
- Thyroid gland (preparation)

- Large intestine (preparation)
- Fallopian tube(preparation)
- Bronchus (preparation)
- Bladder (preparation)
- Belly skin (preparation)
- Esophagus (preparation)
- Vagina (preparation)
- Lungs (preparation)
- Small intestine (preparation)
- Pancreas (preparation)
- Parotis (preparation)
- Submandibularis (preparation)
- Mamma lactans (preparation)
- Mamma nonlactans (preparation)
- Stomach fundus (preparation)
- Adrenal gland (preparation)

References

- Modul Buněčné základy medicíny (3. LF UK)

Study materials for the preparation

- Pancreas