

## LIST OF MICROSLIDES FOR FINAL TEST 2

№6 Meningioma

№15 Fibroadenoma of breast

№32 Lymphogranulomatosis. (Hodgkin's disease)

№55 Glandular (simple) hyperplasia of endometrium

№57 Hypertrophy of the myocardium

№58<sup>a</sup> Papilloma of skin

№59 Fibromyoma (leiomyoma) of uterus

№62 Squamous cell carcinoma with keratinization

№64 Infiltrative ductal breast cancer (scirrhous [fibrous] carcinoma)

№65 Lymphogenic metastasis of cancer in the lung

№67 Colon cancer

№71<sup>a</sup> Hemangioma of skin

№80 Chorioepithelioma

№84 Liver. Chronic lympholeucosis (chronic lymphatic leukemia)

№108 Nevrinoma

№109 Nodular goiter

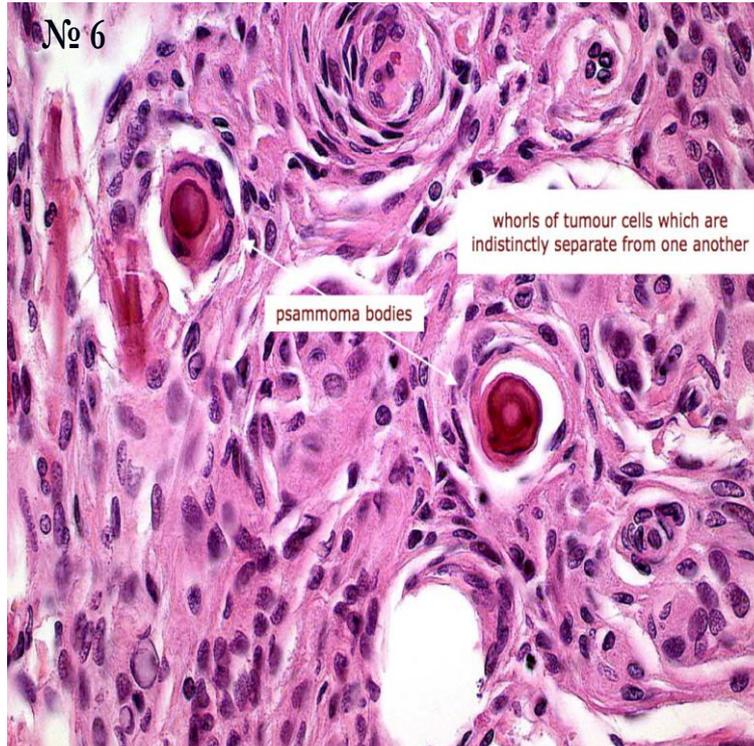
№132 Renal cells carcinoma. (Clear cells type)

№141 Liver. Chronic myeloid leucosis



### №6 MENINGIOMA (hematoxylin and eosin staining)

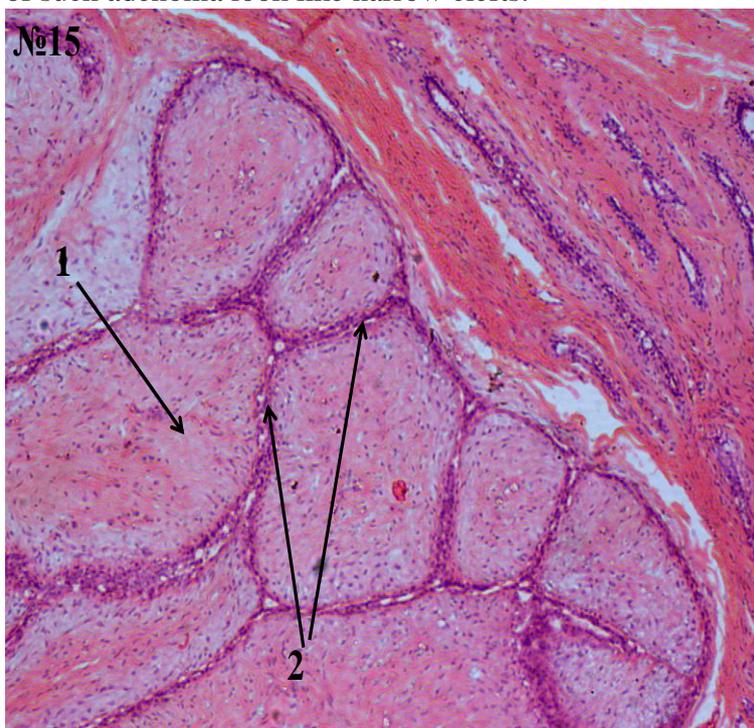
This pattern is characterised by a combination of cells with syncytial and fibroblastic features with conspicuous whorled pattern of tumour cells, often around central capillary-sized blood vessels and fibres as the concentric stratifications which have received the name «bulbous structures». Some of the whorls contain psammoma bodies due to calcification of the central core of whorls.



1. «Bulbous structures».
2. Psammoma bodies.

### №15 FIBROADENOMA OF THE BREAST (H&E)

Parenchyma of tumour is submitted by glandular complexes of the various form and sizes, and stroma by intralobular growth of connective tissue, which predominates above glandular component. Adenoma is called as intracanalicular fibroadenoma, if it grows in ducts walls and compressed the lumen by connective tissue. Ducts of such adenoma look like narrow clefts.

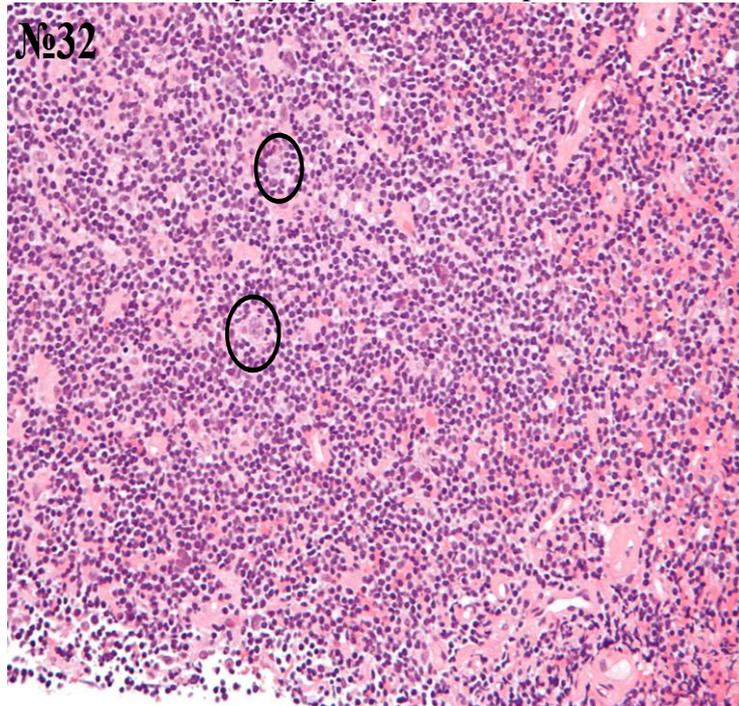


1. Intralobular growth of connective tissue.
2. Compressed lumen of glands.

### №32 LYMPHOGRANULOMATOSIS (HODGKIN'S DISEASE)

(H&E)

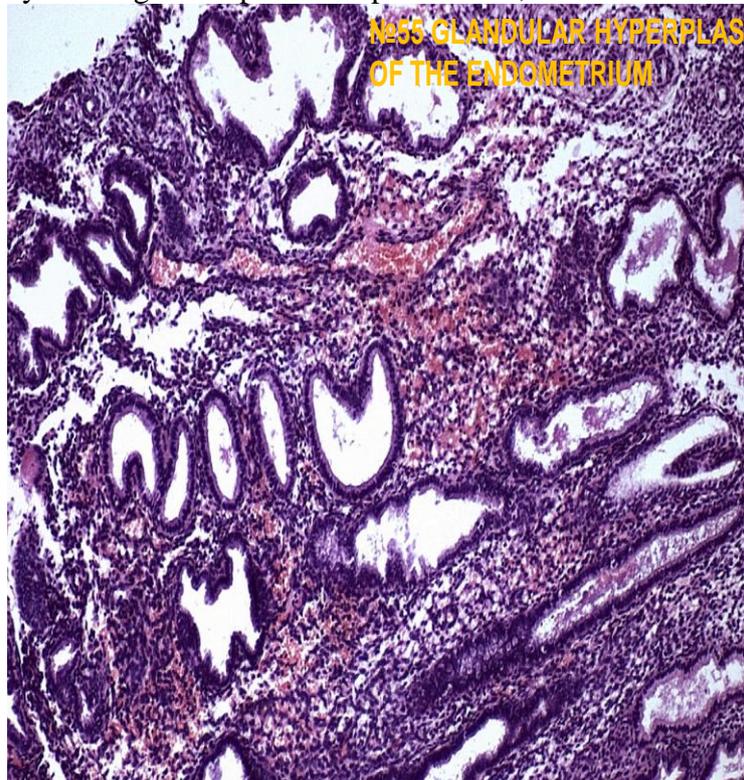
The structure of lymphatic node is sharply changed. You can see a lot of giant cells – Reed-Sternberg cells. Also, you can see find many lymphocytes, eosinophils and foci of necrosis.



1. Reed-Sternberg cells.
2. Eosinophils.
3. Lymphocytes.
4. Foci of necrosis.

### №55 GLANDULAR HYPERPLASIA OF THE ENDOMETRIUM (H&E)

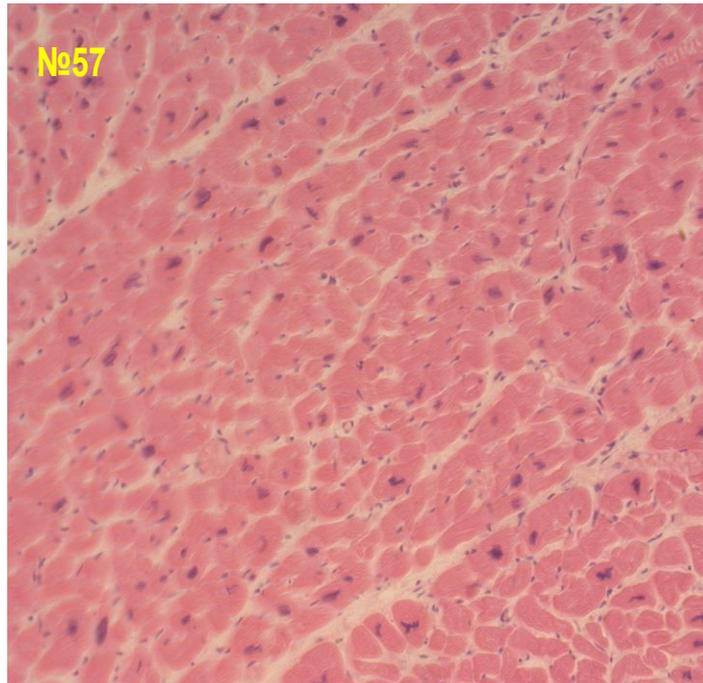
Shows greatly thickened endometrium, which is characterized by an increase in the number of cells in each gland. The glands have twisty shape (saw-toothed, corkscrew-like); some of them have dilated lumen and appearance of cyst. The glands epithelium proliferates; the stroma is reach by cellular elements.



1. Endometrium.
2. Glands with twisty shape (saw-toothed, corkscrew-like).

### **№57 HYPERTROPHY OF THE MYOCARDIUM (H&E)**

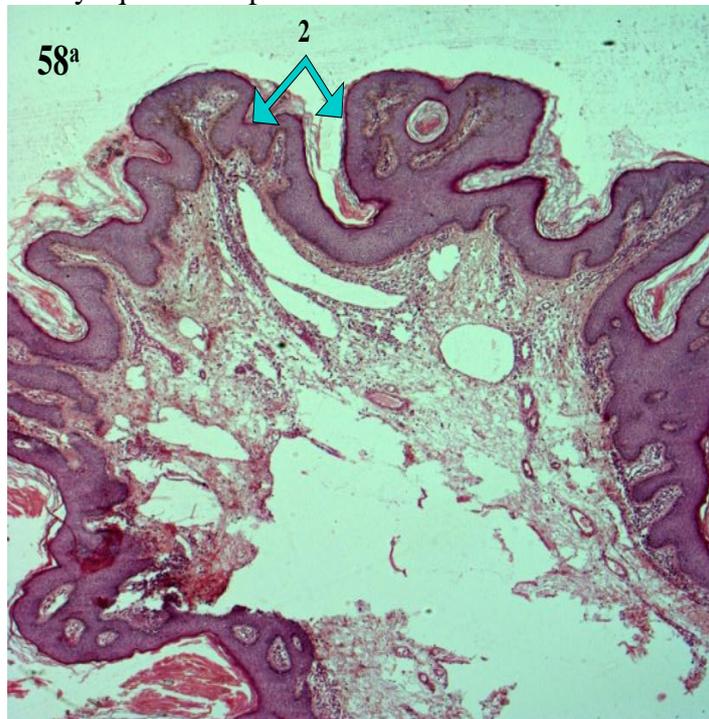
Cardiac muscle cells of hypertrophied myocardium are increased. Note that the nuclei in the hypertrophied cardiac muscle are also increased and they are hyperchromatic. There are many blood vessels in the enlarged stroma.



1. Increased cardiac muscle cells.
2. Increased in size nuclei.

### **№58<sup>a</sup> SKIN PAPILLOMA (H&E)**

Numerous outgrowths of squamous epithelium are visible, which compounds parenchyma of tumour. Tumorous stroma submitted by outgrowths of derma is well marked in tumor. This overgrowths look like glove fingers, and are covered by squamous epithelium.

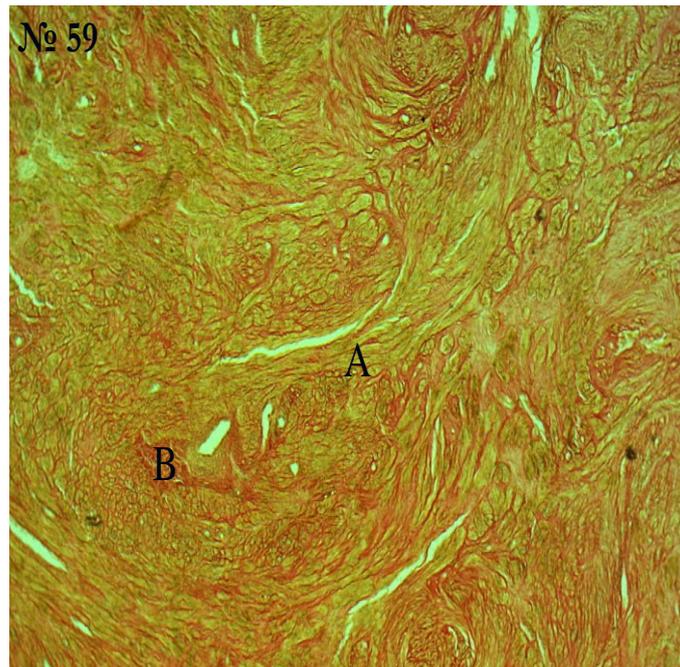


1. Connective tissue papillae.
2. Squamous epithelium.

### № 59 LEIOMYOMA.

(van Gieson stain)

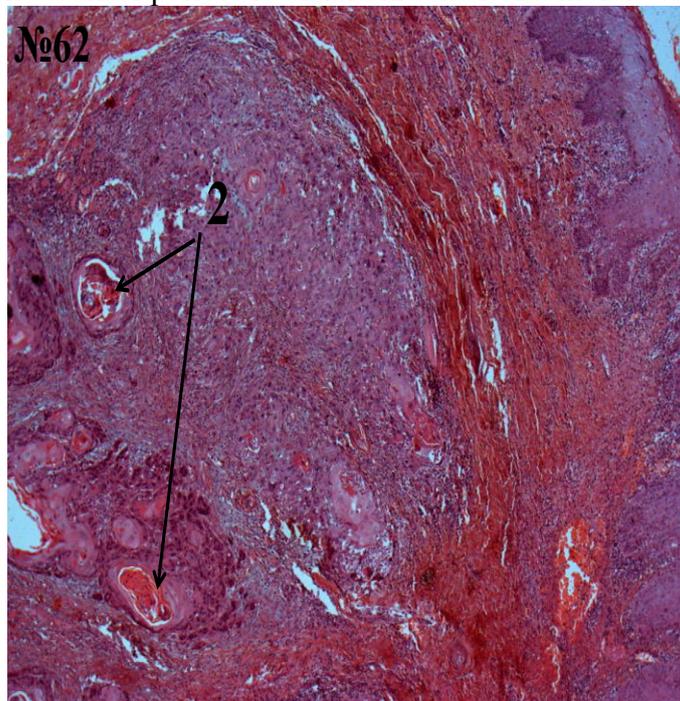
Tumor is composed of interlacing smooth-muscle cells (stained by picro-fuchsin in yellow-greenish color) and collagenous fascicles (ruby). The muscle and collagenous fibers are disposed in disorder (tissue atypia).



1. Smooth-muscle cells.
2. Fibrous tissue (collagenous fascicles).

### №62 SQUAMOUS CELL CARCINOMA WITH KERATINIZATION (H&E)

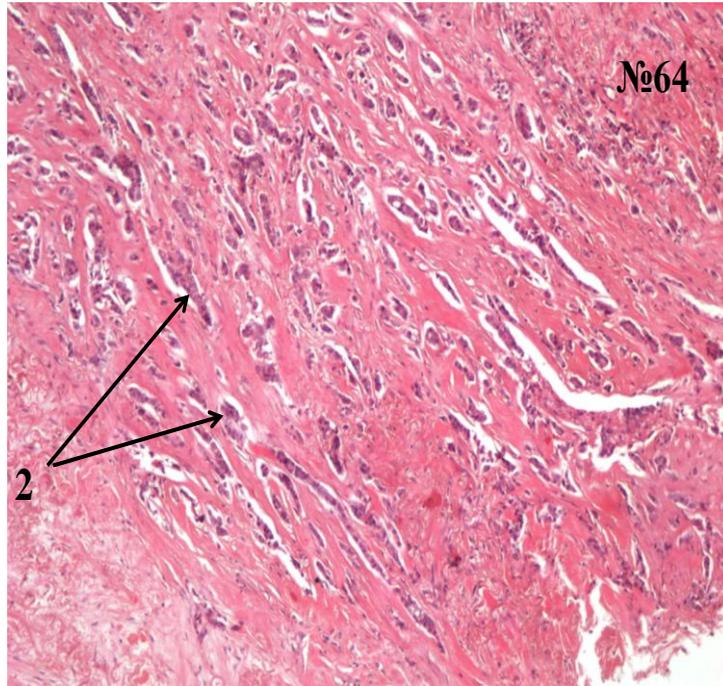
The tumour consists from bands and layers of an atypical flat epithelium which grows into subjacent derma. Attributes of polymorphic cells with hyperchromatic different size nucleus, keeping two or more nucleoluses are visible at the big augmentation. Figures of pathological mitoses are found out. Bulbar structures from keratotic cells «cancer perls» are visible in center of tumoral sockets.



1. Polymorphic cancer cells with hyperchromatic different size nucleus.
2. Cancer perls.
3. Connective tissue stroma.

**№64 INFILTRATIVE DUCTAL BREAST CANCER (SCIRRHOUS [FIBROUS] CARCINOMA)  
(H&E)**

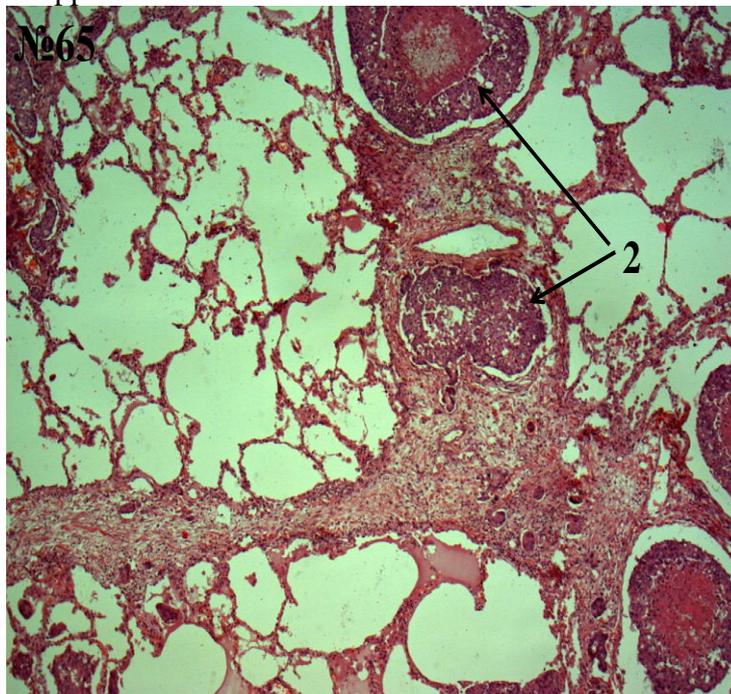
The tumour consists from single or groupe of cancer cells of various size and form, with hyperchromatic nucleus and pathological mitosises figures. It is seen predominance of connective tissue stroma on epithelial component.



1. Stroma.
2. Cancer cells.

**№65 Lymphogenic metastasis of cancer in the lung (H&E)**

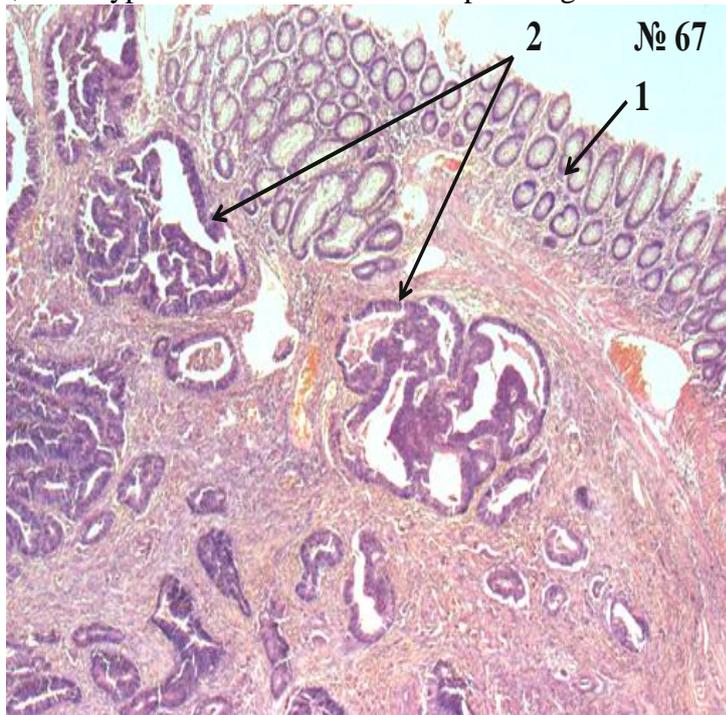
In the tissue of lungs you can find dilated blood vessels, hydropic fluid in lumens of alveoluses. In various fields of lung are visible dilated lymphatic vessels, which lumens are filled with complexes of cancer cells. Due to embolic process in a pulmonary tissue numerous lymphogenous metastasises of an undifferentiated cancer have appeared



1. Dilated blood vessels.
2. Hydropic fluid in lumens of alveoluses.
3. Cancerous embolus in the lumen of lymphatic vessels.

### № 67 COLON CANCER (H&E)

Overgrowths of atypical glands are visible in all layers of colon wall. There are cells, forming glands of various size and form, with hyperchromatic nucleus and pathological mitosis figures.



1. Normal mucosa of colon.
2. Cancer cells.

### №71<sup>a</sup> HEMANGIOMA OF SKIN (H&E)

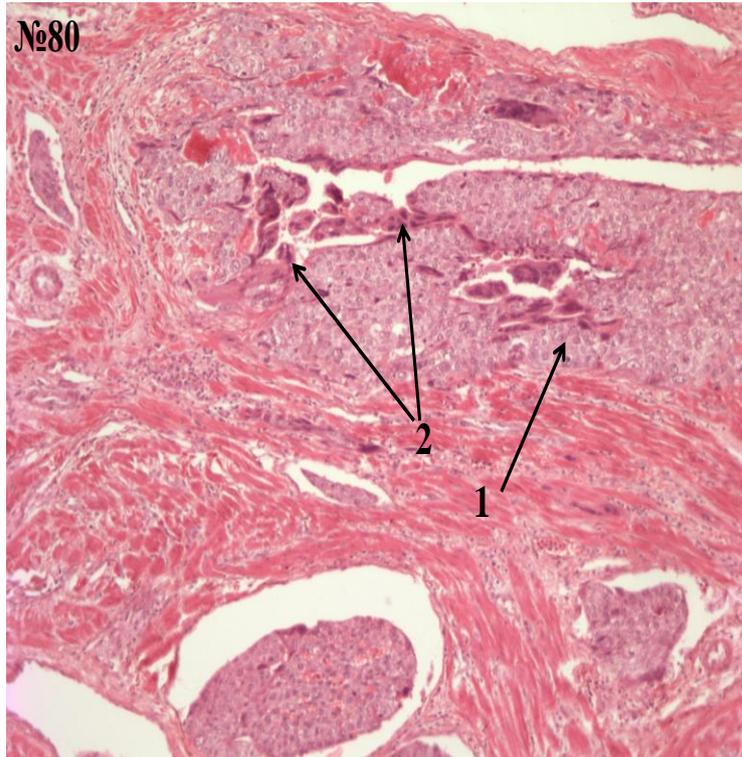
The tumor tissue is composed of great number thin-walled vascular spaces (caverns) different size and form lined by endothelial cells. The spaces are partition off by various thick fibrous layers. The caverns lumen is filled with blood and thrombotic masses. The tumor surrounded by fibrous capsule.



1. Vascular spaces (caverns).
2. Fibrous layers.

### **№80 CHORIOCARCINOMA (CHORIONEPITHELIOMA) (H&E)**

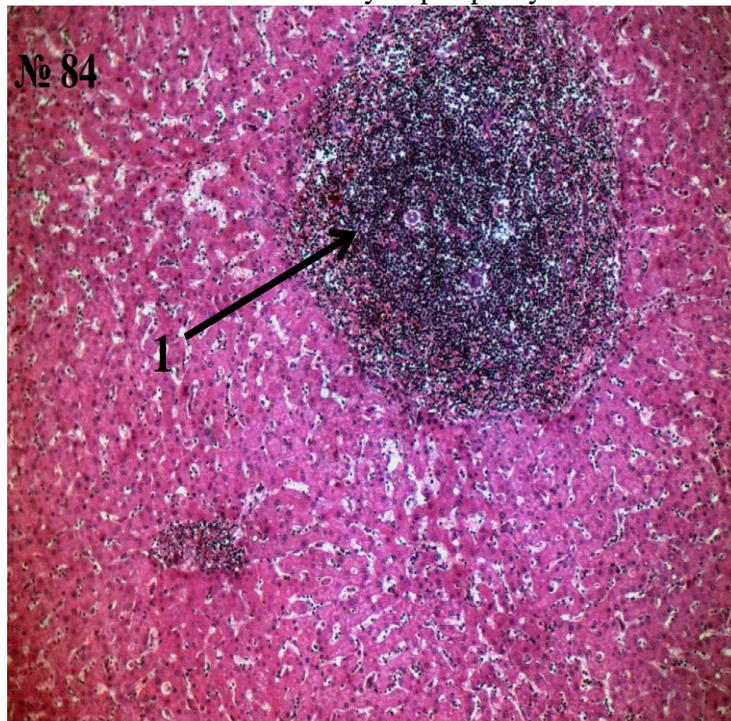
The tumour is constructed from tumoral cells of two types: monomorphic light epithelial (Langhans) and giant dividing cells with hyperchromatic polymorphic nucleus (syncytiotrophoblast). The stroma in tumour is absent; cavities filled with erythrocytes are visible instead of vessels. Walls of cavities are covered by tumoral cells instead of endothelium.



1. Light epithelial (Langhans) cells.
2. Syncytiotrophoblast.

### **№ 84 LIVER. CHRONIC LYMPHOLEUCOSIS (CHRONIC LYMPHATIC LEUKEMIA) (H&E)**

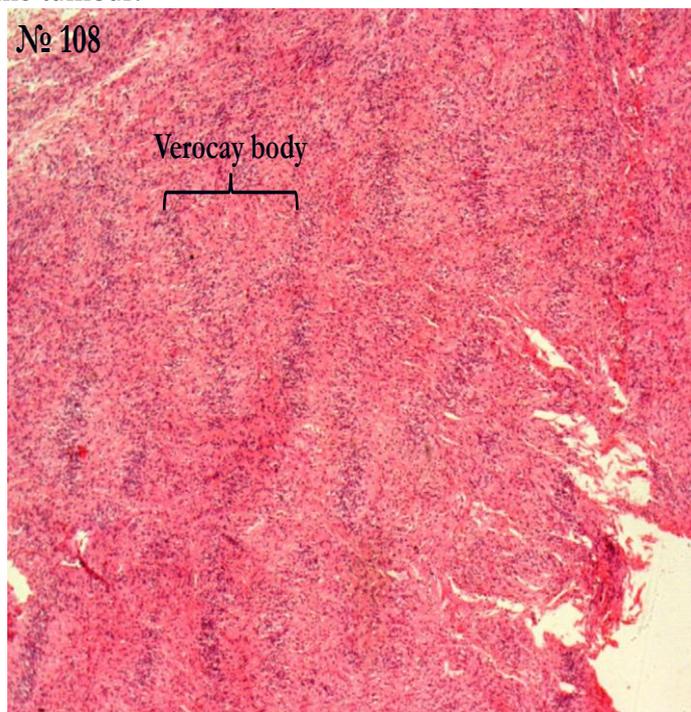
In liver tissue you can see focal infiltration by undifferentiated cells of lymphoid origin. The foci have round shape and different size and situated manly in periphery of lobules.



1. Focal infiltration by undifferentiated cells of lymphoid origin.

### № 108 NEURILEMMOMA (H&E)

The tumour is composed of fibrocellular bundles forming whorled pattern. There are areas of dense and compact cellularity (*Antoni A pattern*) alternating with loose acellular areas (*Antoni B pattern*). Areas of Antoni A pattern show palisaded nuclei called *Verocay bodies*. Nerve fibres are usually found stretched over the capsule but not within the tumour.



1. Areas of dense and compact cellularity.
2. Loose acellular areas.
3. Verocay bodies.

### №109 COLLOID GOITERS (HYPERTROPHY OF THYROID GLAND) (H&E)

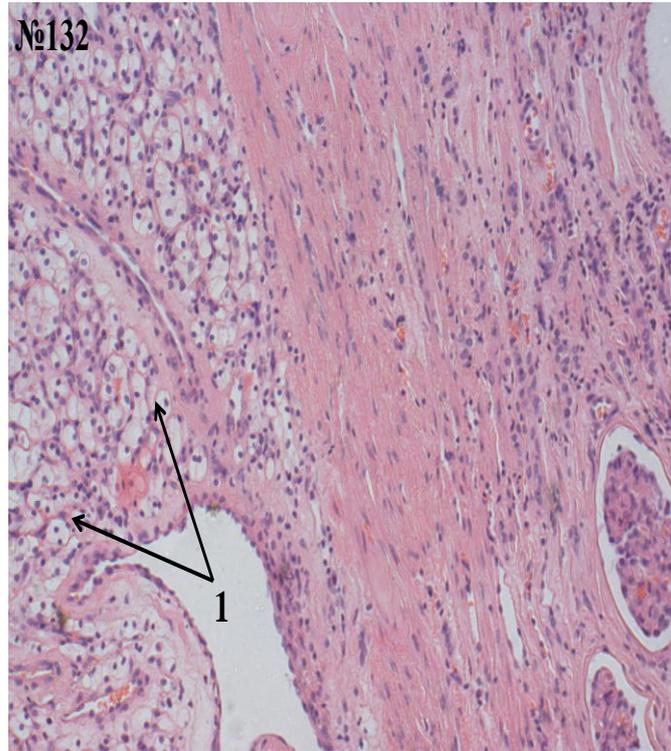
The thyroid tissue is composed of hyperplastic thyroid acini. Many contain gelatinous colloid, other are solid and cream colored. Cystic degeneration is common. The follicles epithelium is flattened, atrophied.



1. Increased in size thyroid acini.

### **№132 RENAL CELL CARCINOMA (Clear cell type) (H&E)**

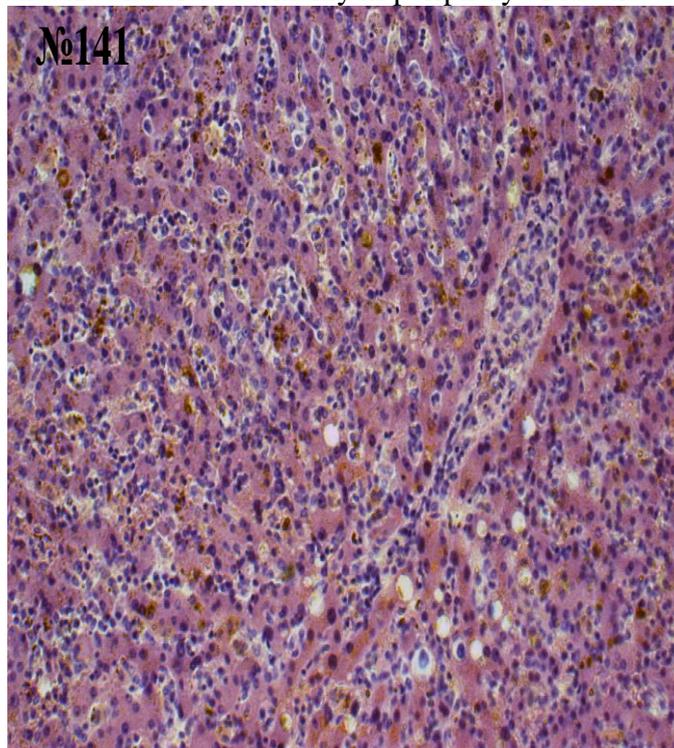
This is the most common pattern. The clear cytoplasm of tumour cells is due to removal of glycogen and lipid from the cytoplasm during processing of tissues. The tumour cells have a variety of patterns: solid, trabecular and tubular, separated by delicate vasculature. Majority of clear cell tumours are well differentiated.



1. Tumour cells with clear cytoplasm.
2. Connective tissue stratum.

### **№141 Liver. Chronic myeloid leucosis. (H&E)**

In liver tissue you can see focal infiltration by undifferentiated cells of lymphoid origin. The foci have round shape and different size and situated manly in periphery of lobules.



1. Focal infiltration by undifferentiated cells of lymphoid origin.



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