

## Slide section 5

### Thyroid gland diseases; CNS tumors

#### Slides:

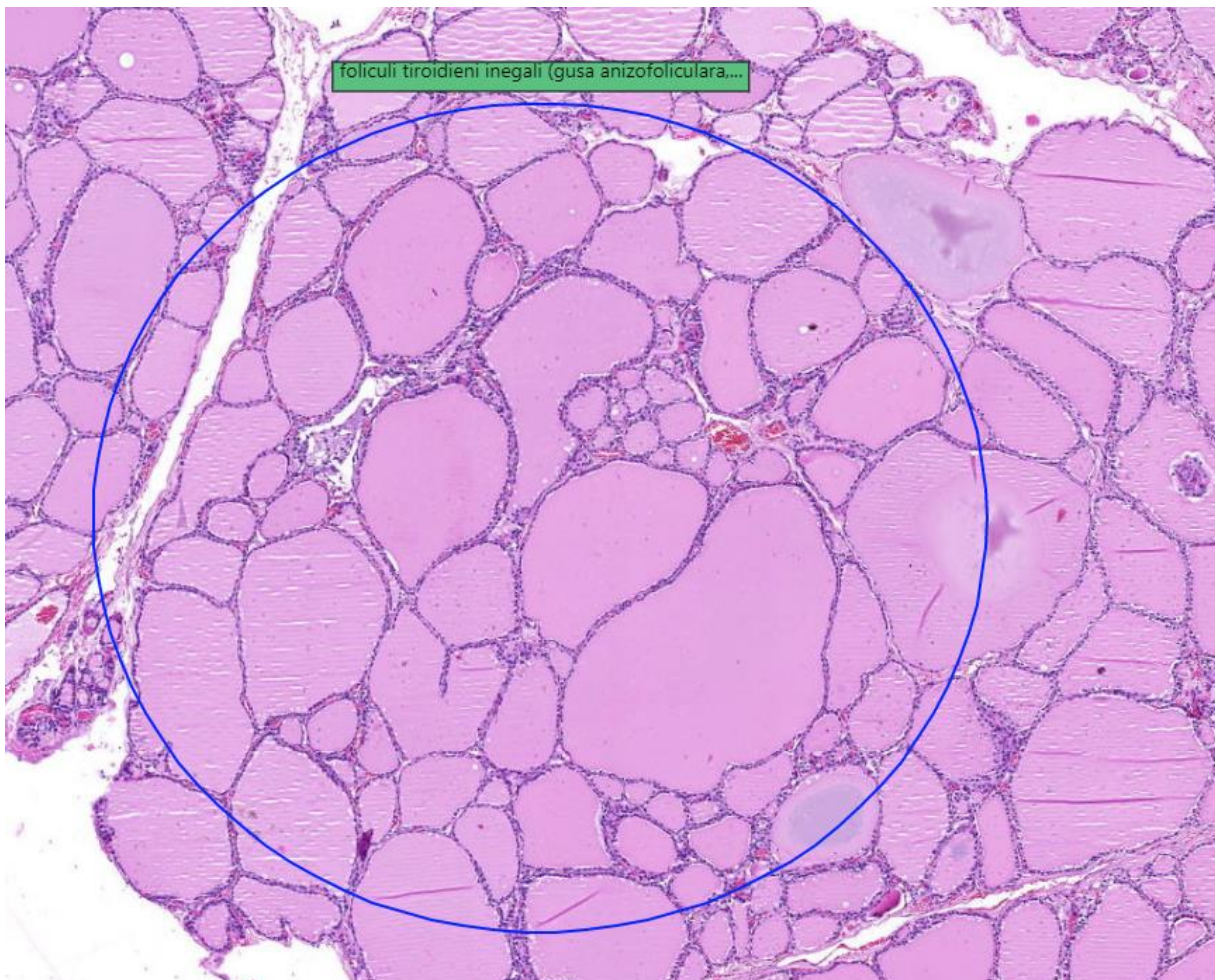
- Diffuse nontoxic endemic goiter.
- Graves' disease.
- Thyroid papillary carcinoma.
- Meningioma.
- Glioblastoma multiforme

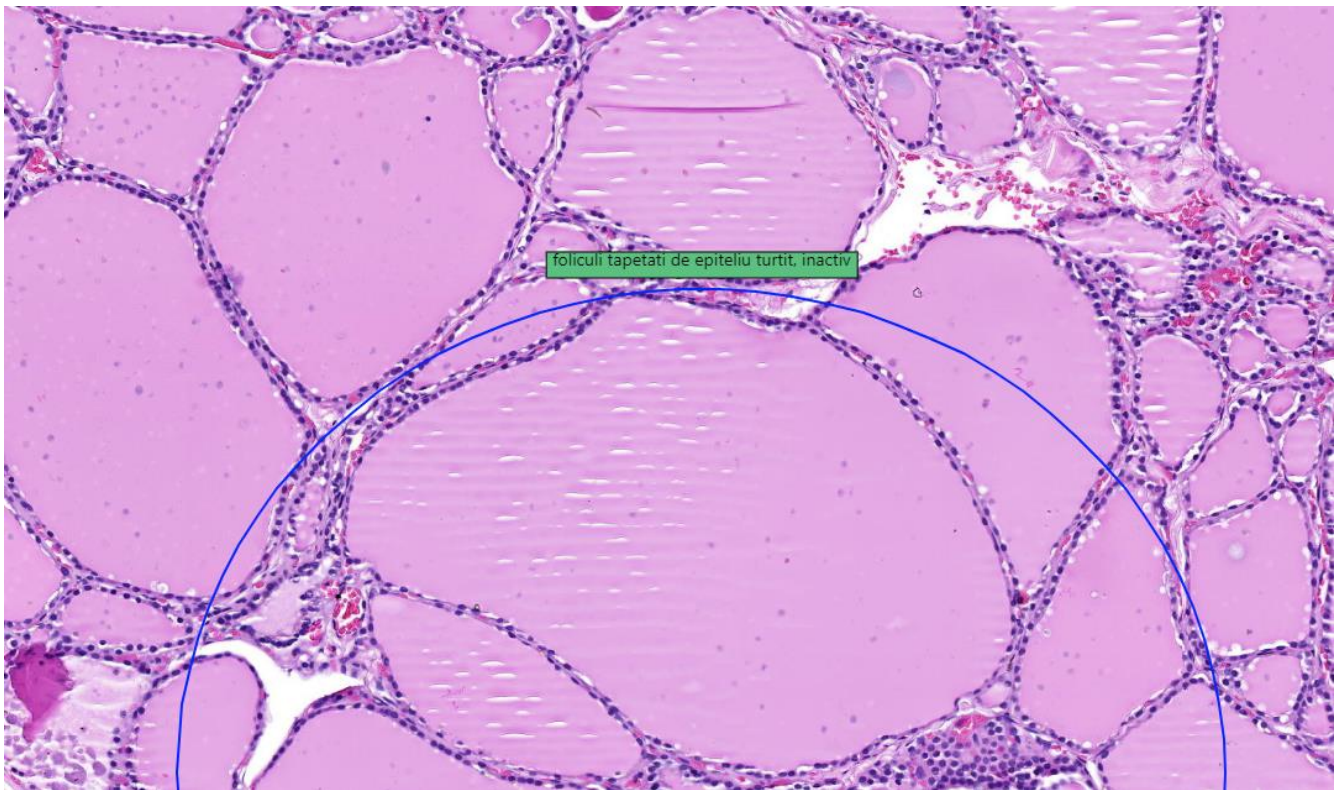
**ANNOTATIONS:** On the virtual slides, the annotations are in Romanian, the corresponding term is in the following text on a **green background**, similar to what you can identify on the server.

Organ: **Thyroid gland**

Lesion : **Diffuse nontoxic endemic goiter - colloid involution stage**

- follicles enlarge as they become filled with dense colloid, and the epithelium undergoes progressive flattening (**foliculi tapetati de epiteliu turtit**)
- the accumulation of colloid is not uniform throughout the gland, some follicles are hugely distended, whereas others remain small (**foliculi tiroidieni inegali**)



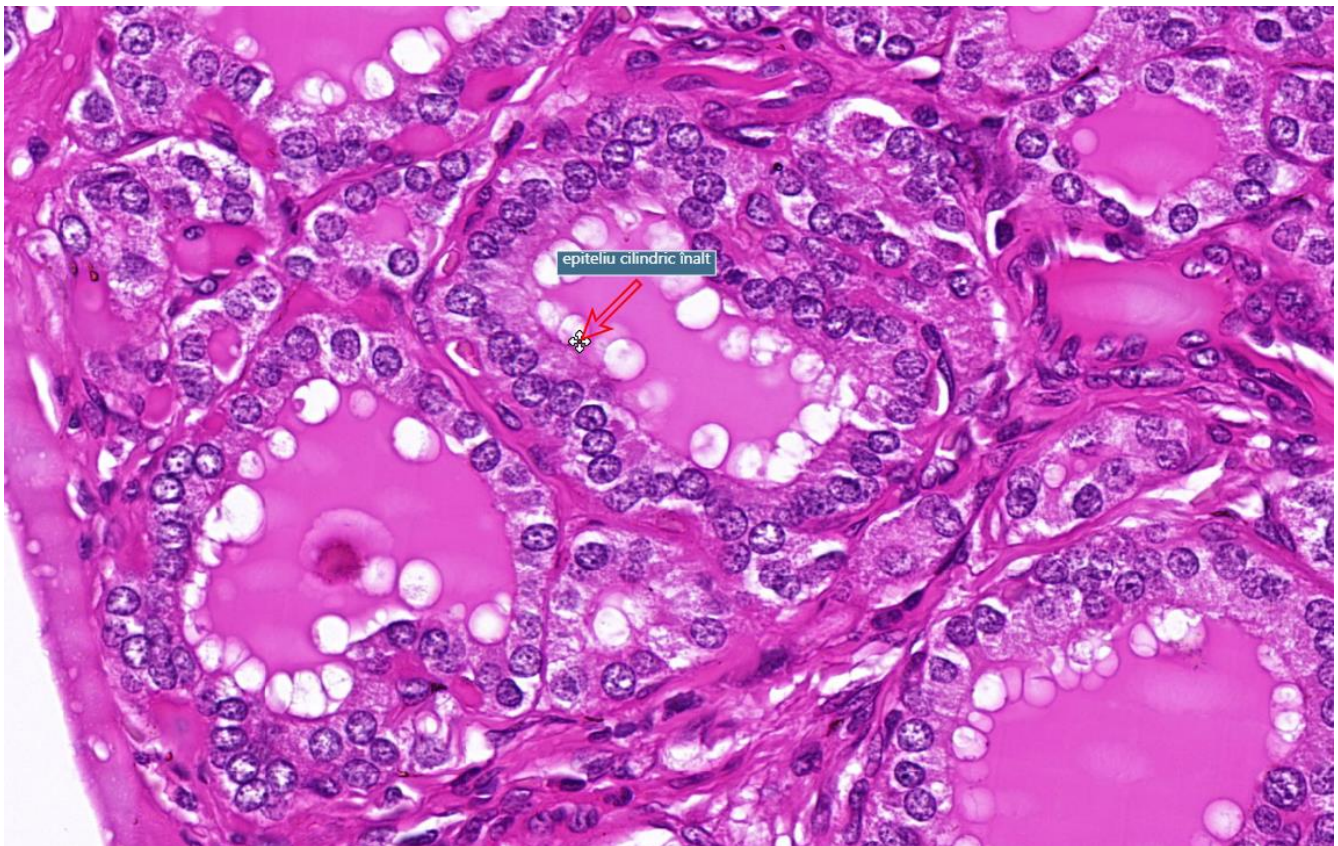




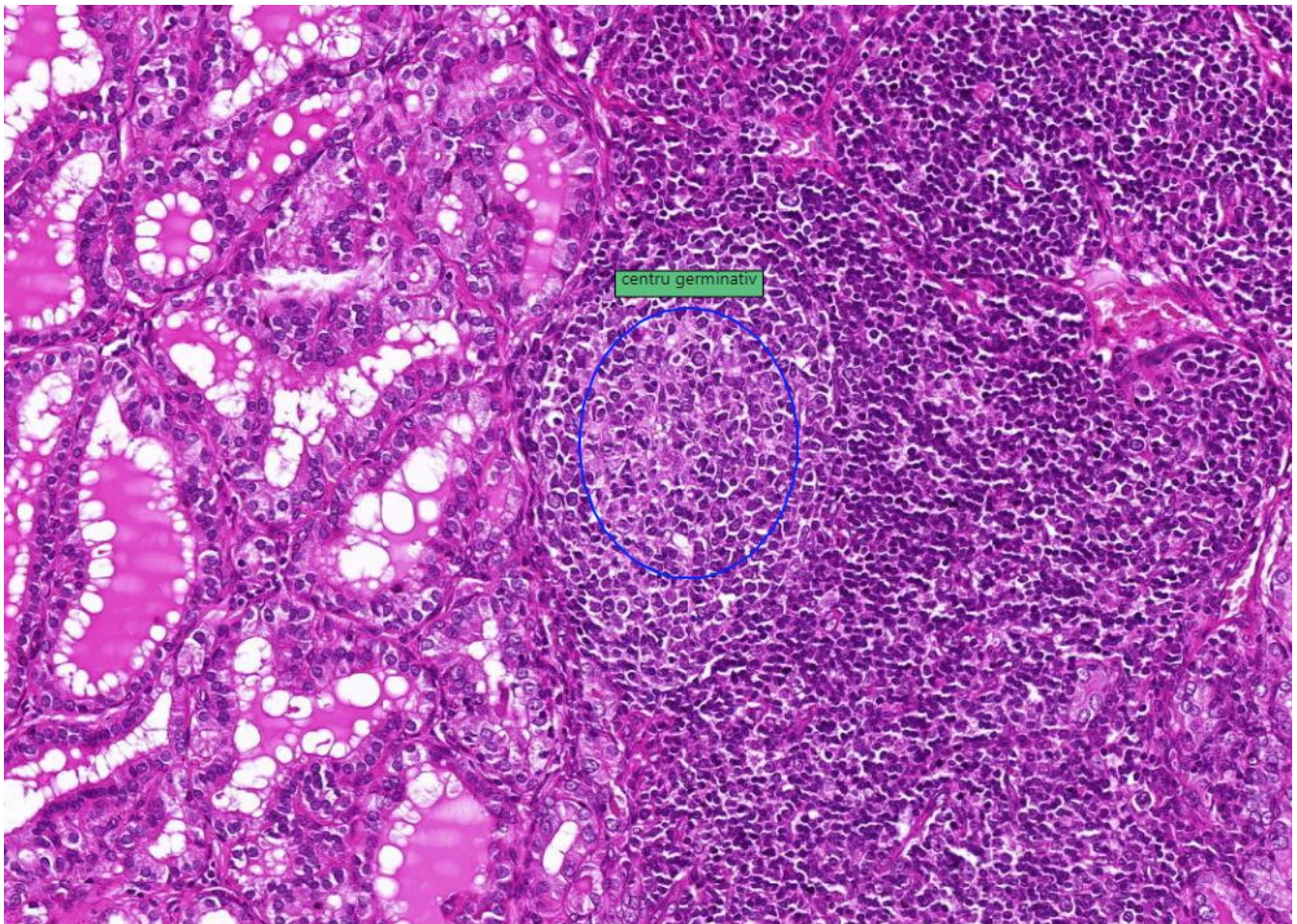
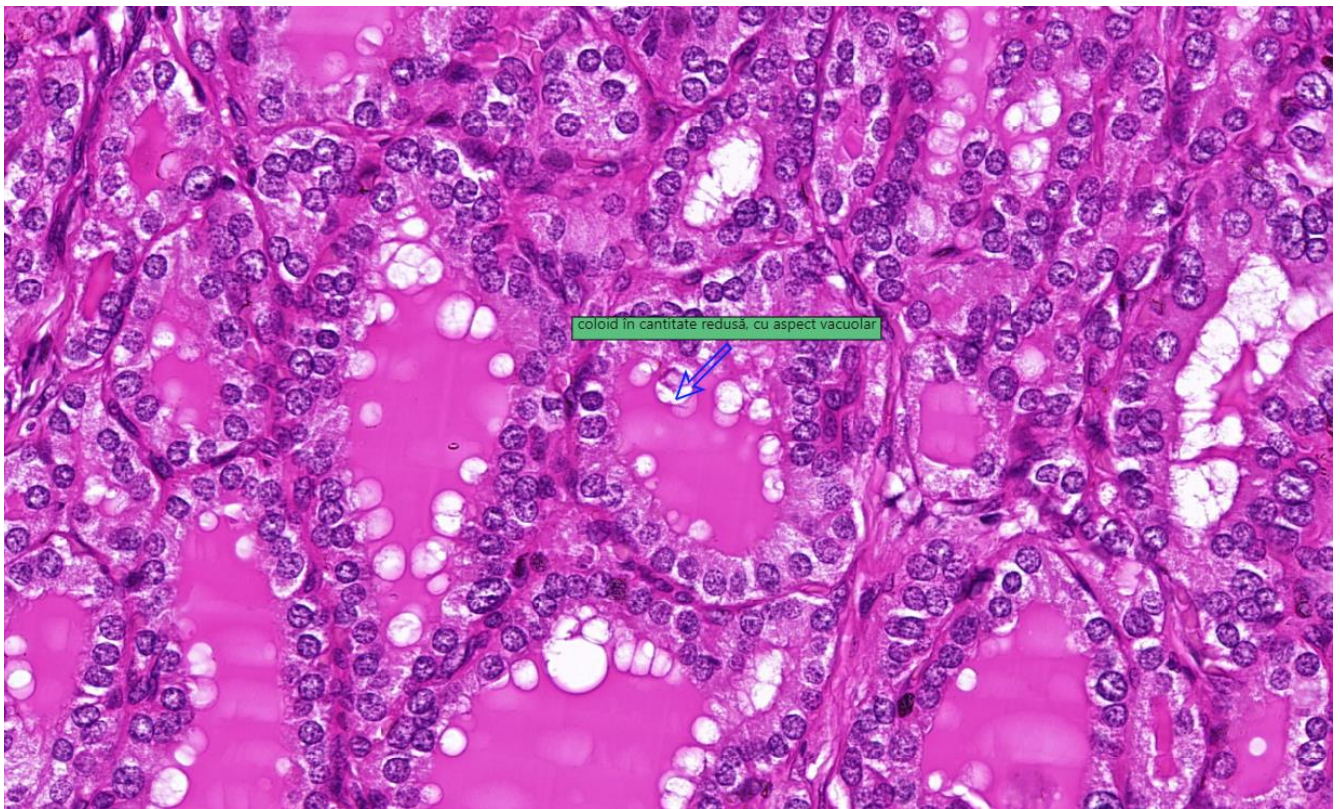
Organ: **Thyroid gland**

Lesion : diffuse hyperplastic goiter, part of **Graves' disease**

- dominant histologic feature is “too many cells”
  - increased number of closely packed acini of various sizes
  - increase in height of the lining epithelium to form tall columnar cells (**epiteliu cilindric înalt**)
  - increase in the number of follicular cells - pseudopapillary buds
- colloid is markedly diminished and, when present, has a pale pink, watery appearance, with vacuoles towards the epithelial lining (**colloid în cantitate redusă, cu aspect vacuolar**)
- lymphoid tissue in the interfollicular stroma, in some areas with germinative center (**centru germinativ**)





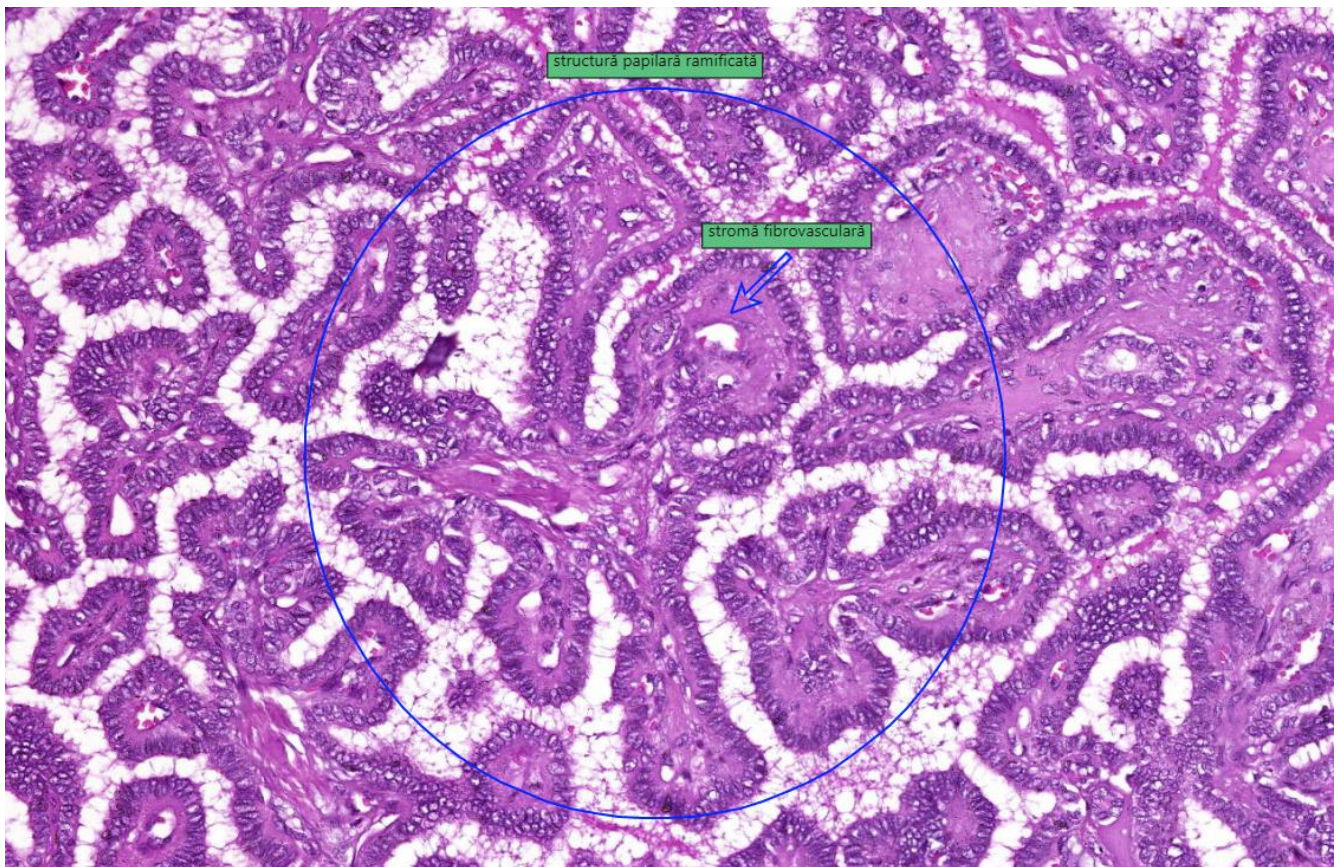




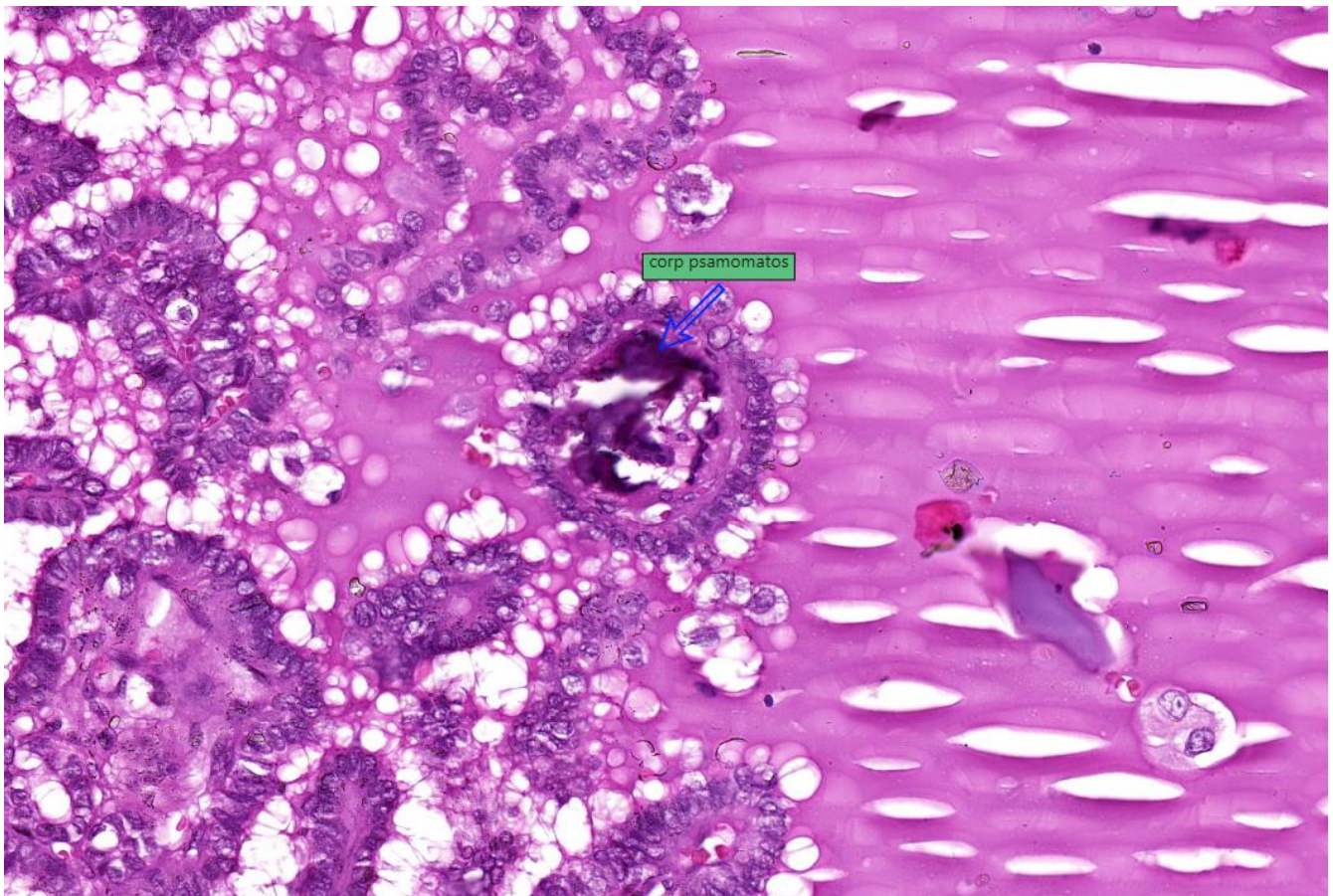
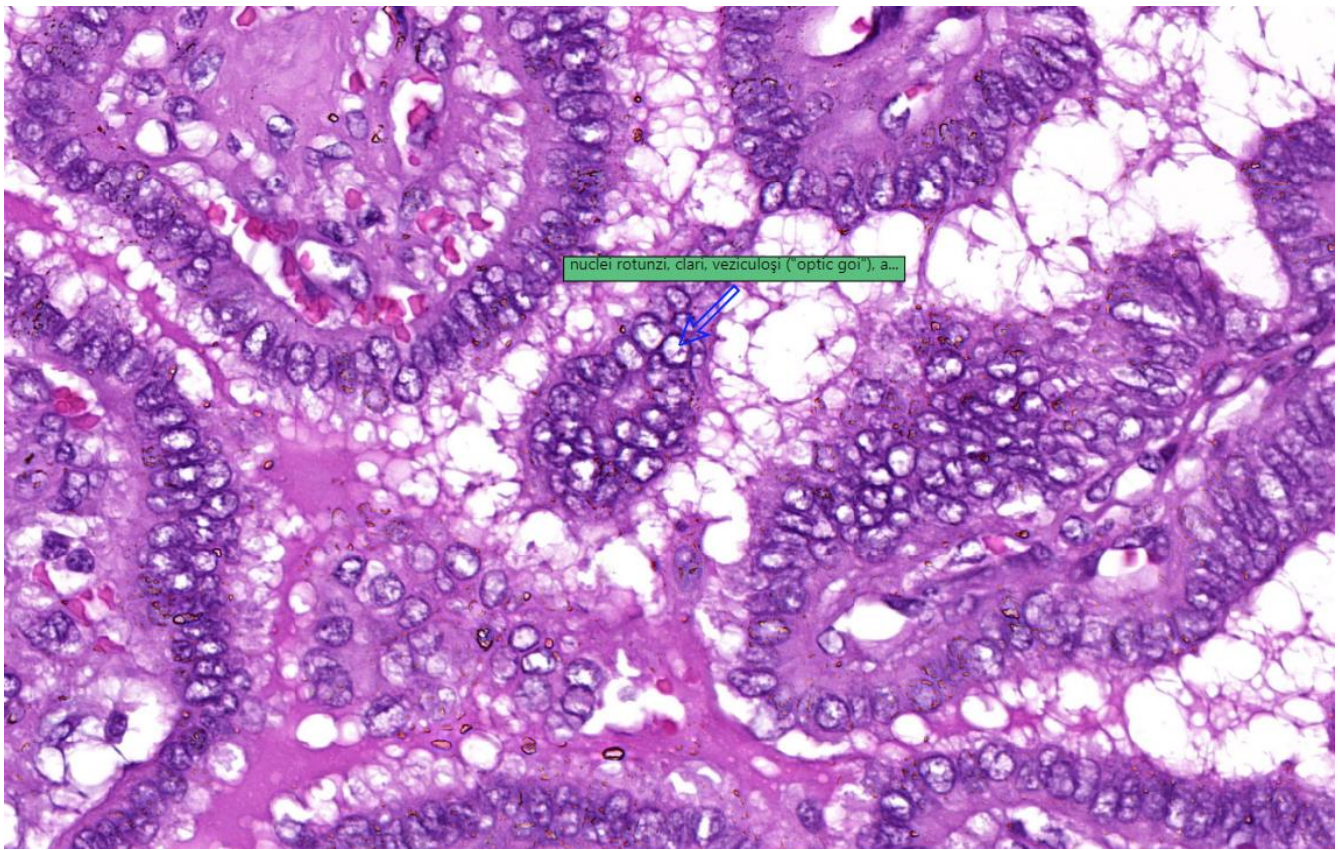
Organ: **Thyroid gland**

Lesion : **Papillary carcinoma**

- branching papillae (**structura papilară ramificată**) having a fibrovascular stalk (**stroma fibrovasculară**) covered by a single to multiple layers of cuboidal epithelial cells, presenting following features:
  - hypochromatic “empty” nuclei – “orphan Annie eyes” (**nuclei rotunzi, clari, veziculosi**)
  - crowded nuclei, overlapping nuclear contour
  - nuclear grooves
- psammoma bodies (**corp psamomatos**) - calcific lamellations, usually in the cores of papillae, but also in stroma





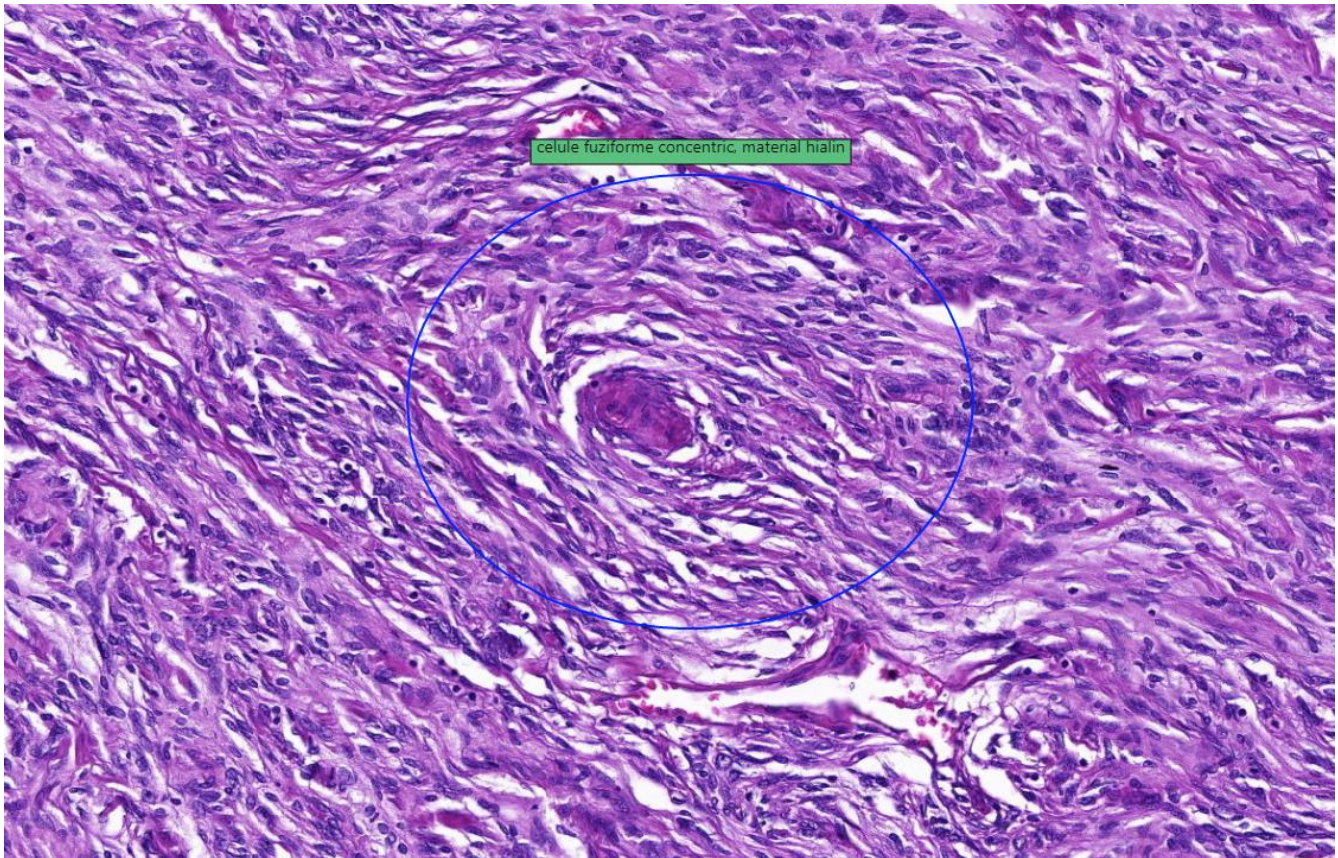




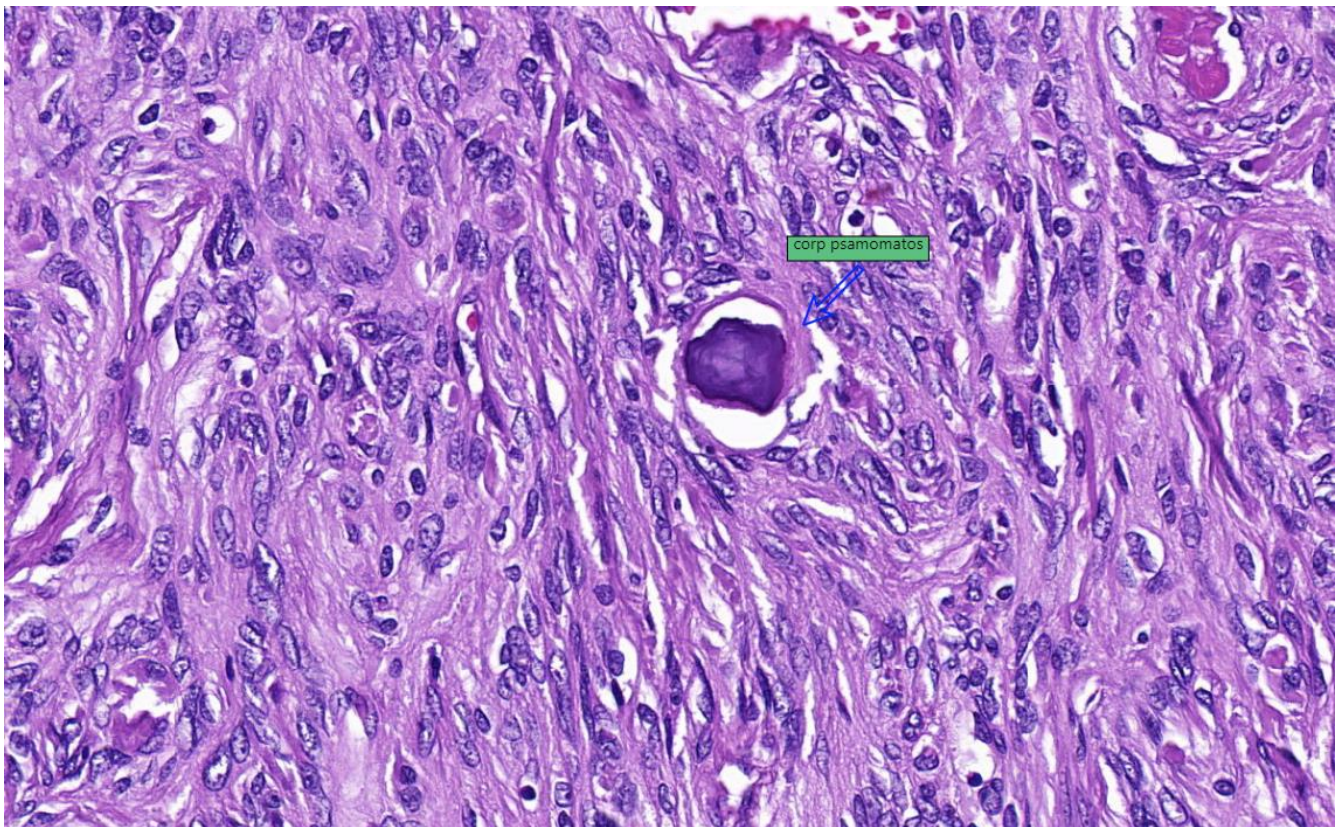
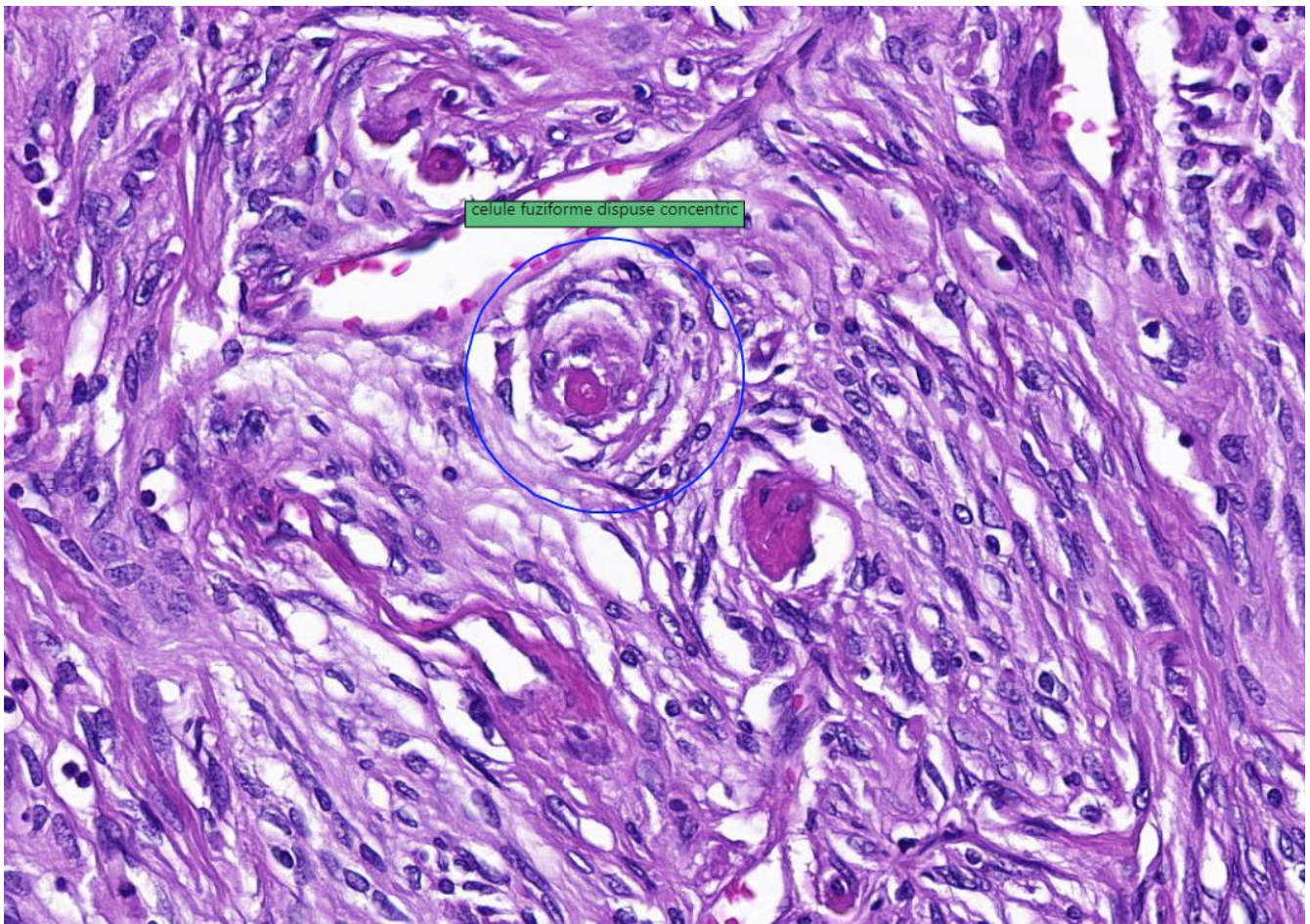
Organ: **Meninges**

Lesion : **Meningioma**

- meningothelial cells arranged in *syncytial* pattern (tightly grouped cells without visible cell membranes)
- whorled clusters of meningothelial cells some degenerated into hyaline (celule fuziforme concentric, material hialin) masses even with calcification (psammoma bodies – corp psamomatos); when the latter structures are dominant, the meningioma is called **psammomatous meningioma**.









Organ: **Brain**

Lesion : **Glioblastoma multiforme**

- marked cellularity, with variable degrees of cellular pleomorphism and multinucleated, bizarre cells
- serpentine areas of necrosis (**necroza tumorala**) surrounded by crowded tumor cells along the edges of the necrotic regions, producing so-called “palisading” (**celule tumorale aglomerate “in palisade”**)
- vascular proliferation (**proliferare de celule endoteliale**)

