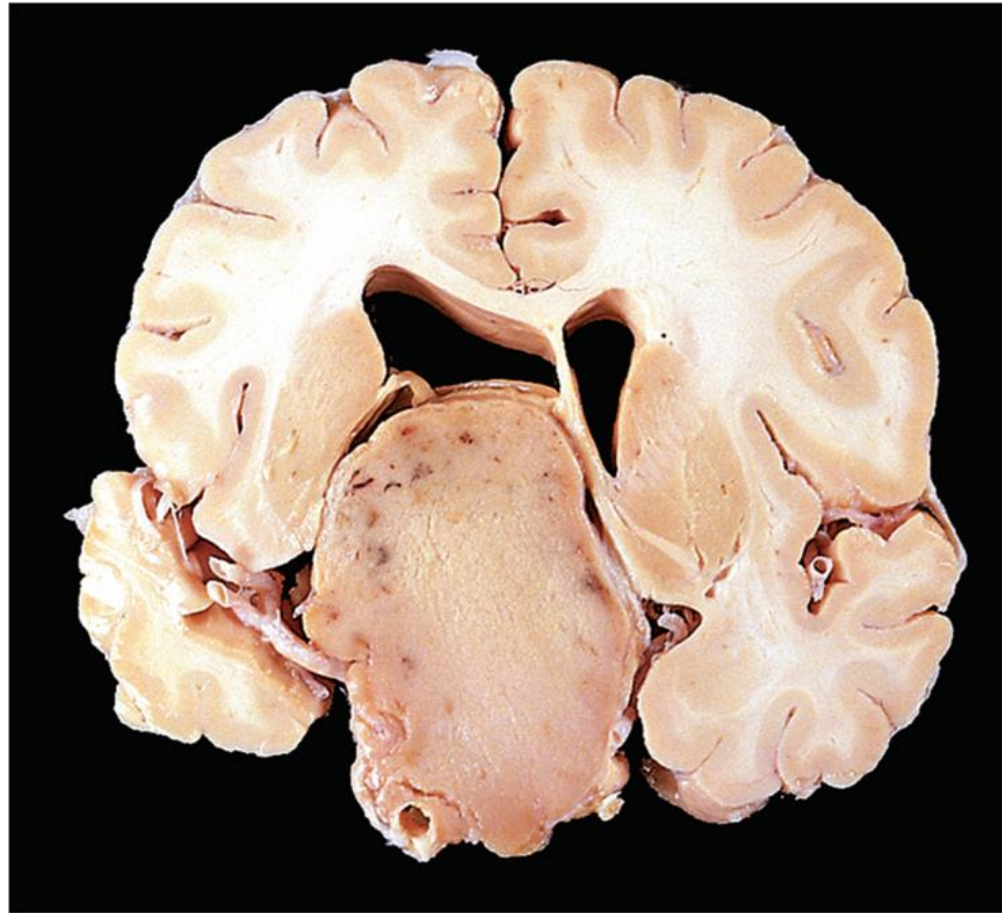


Endocrine System Lab material

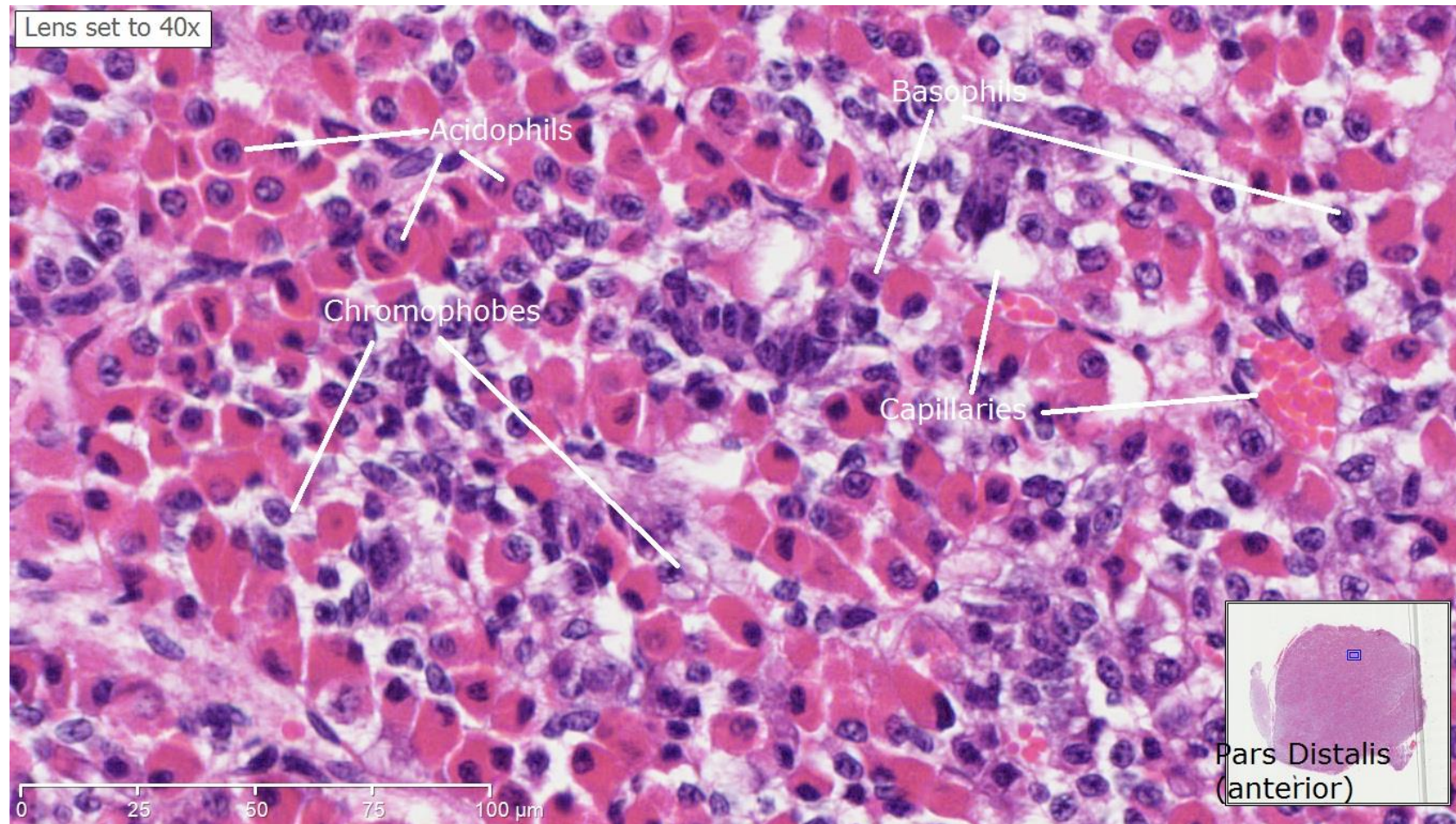
Dr Heyam Awad

Pituitary adenoma

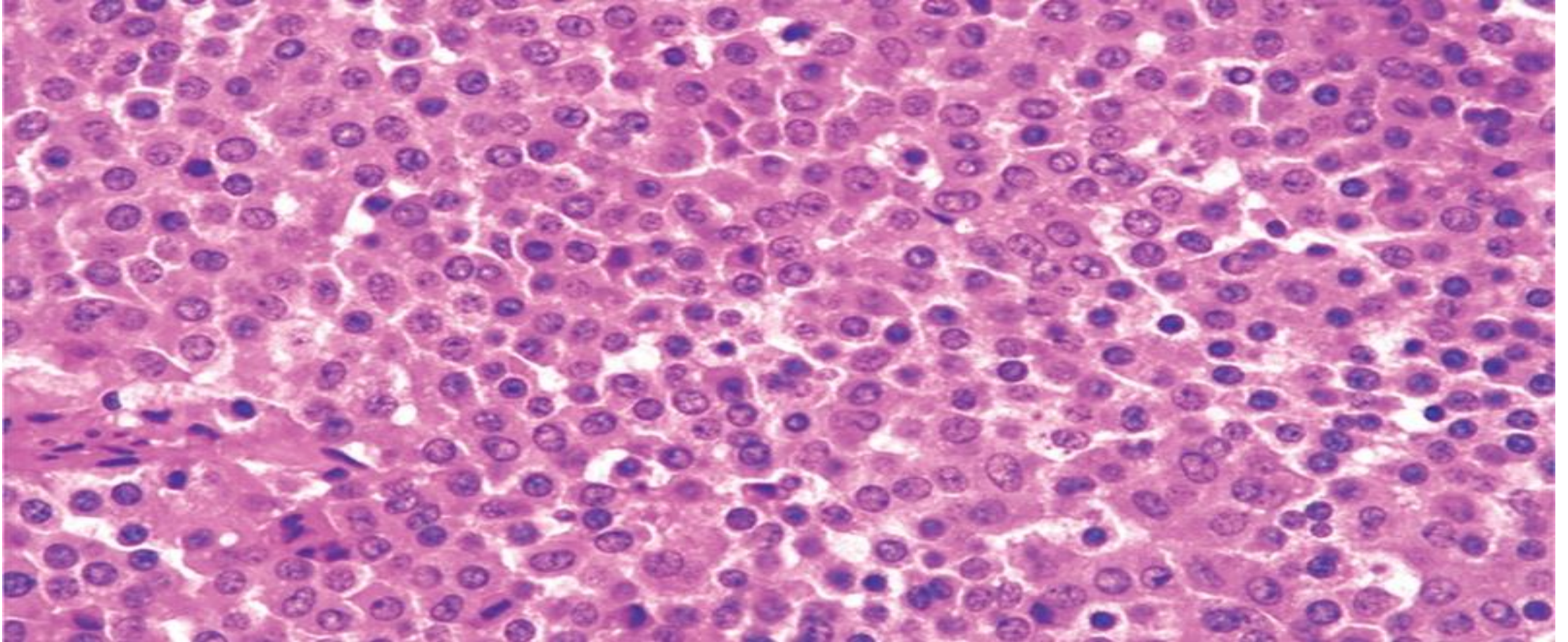


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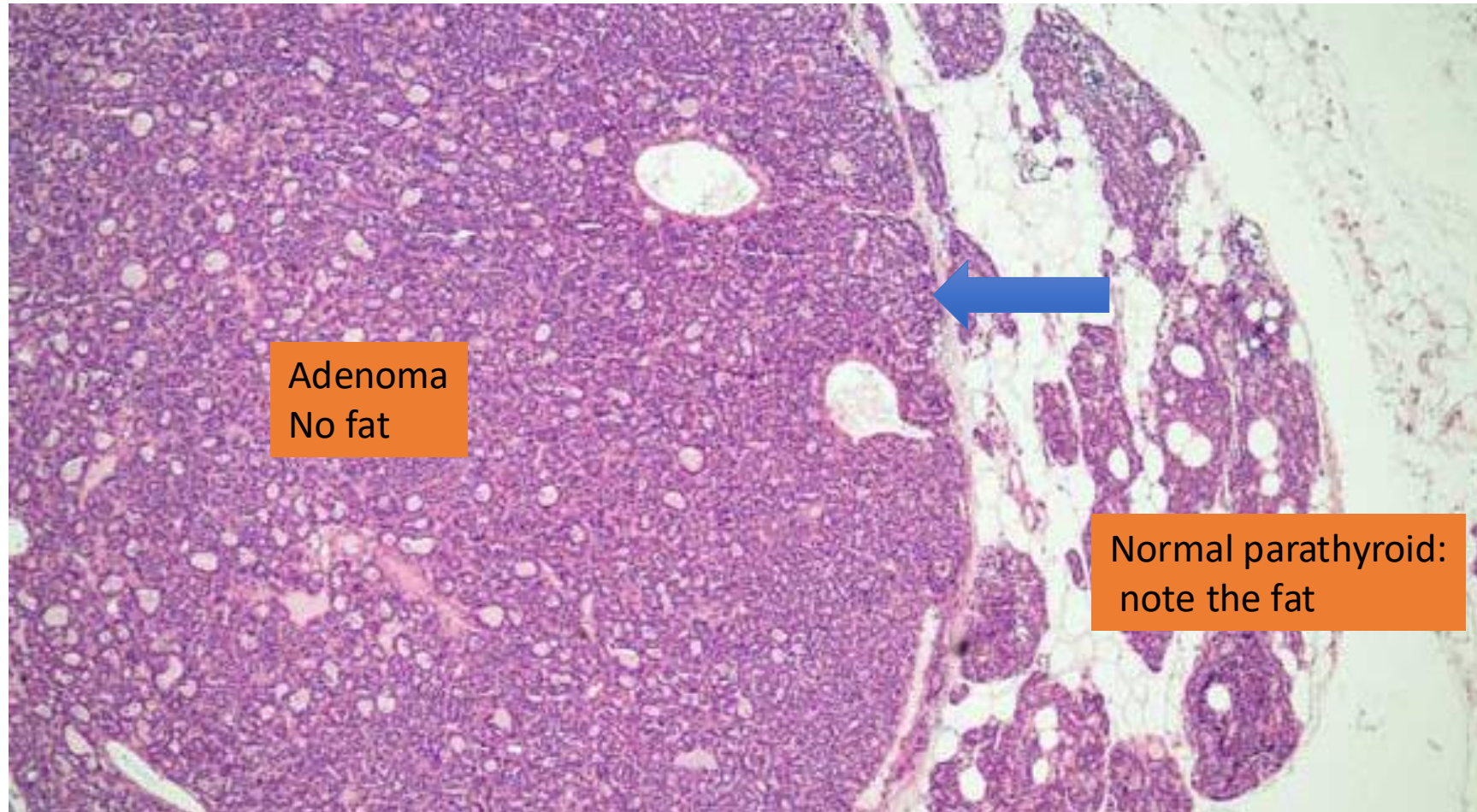
Normal pituitary.. Several cell types



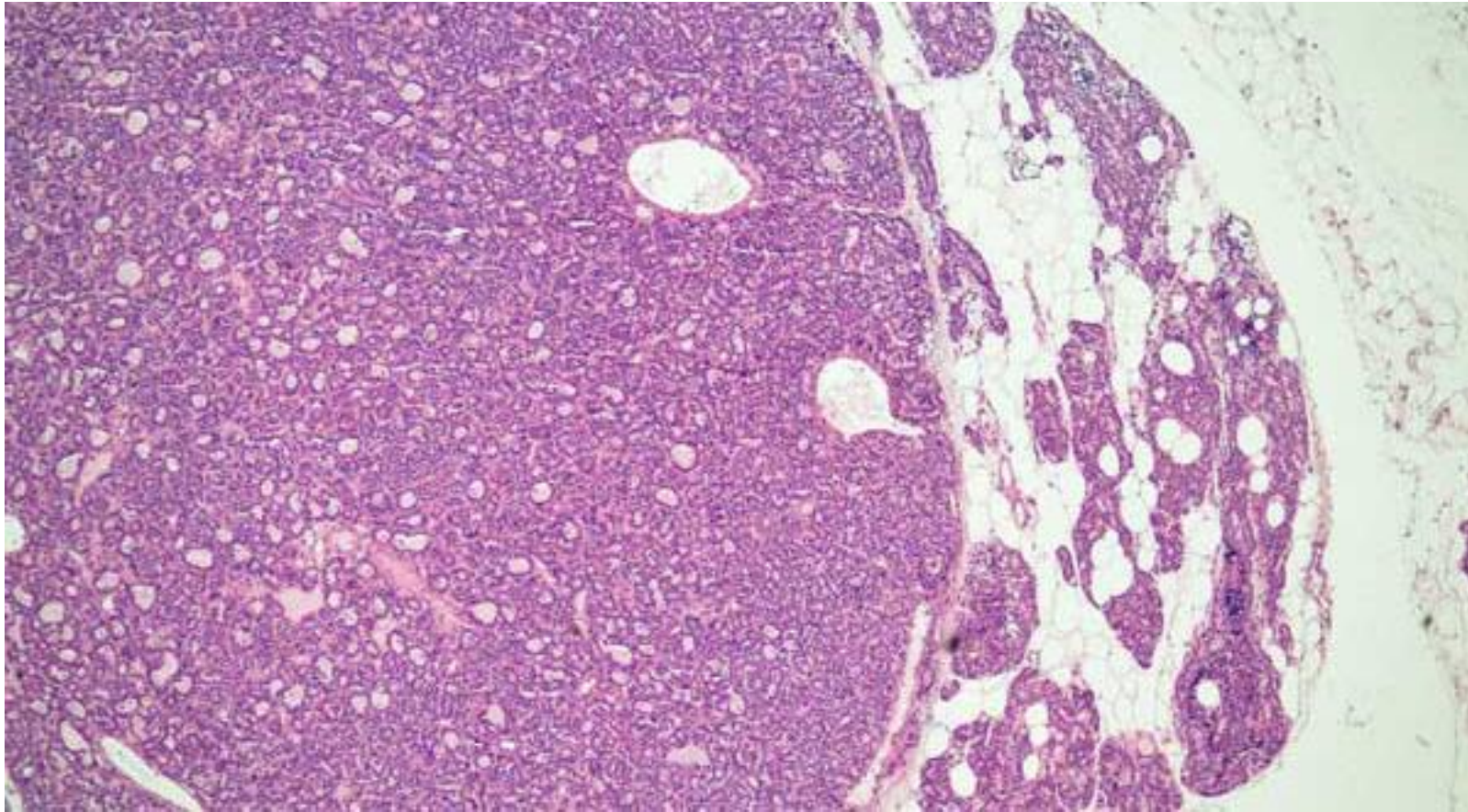
Adenoma.. One cell type = monomorphic appearance



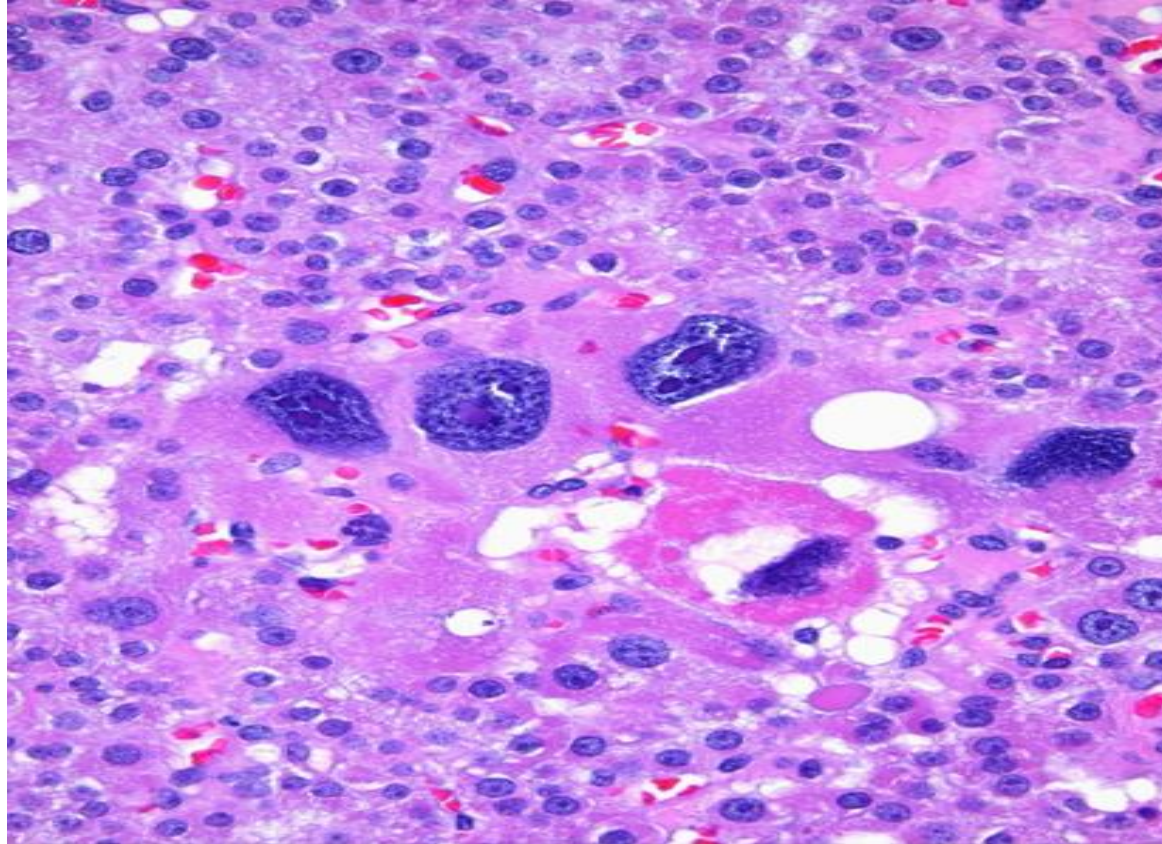
Parathyroid adenoma. Note the thin capsule (arrow) separating the adenoma from normal. Note also the fat in the normal gland. There is no fat in the adenoma.



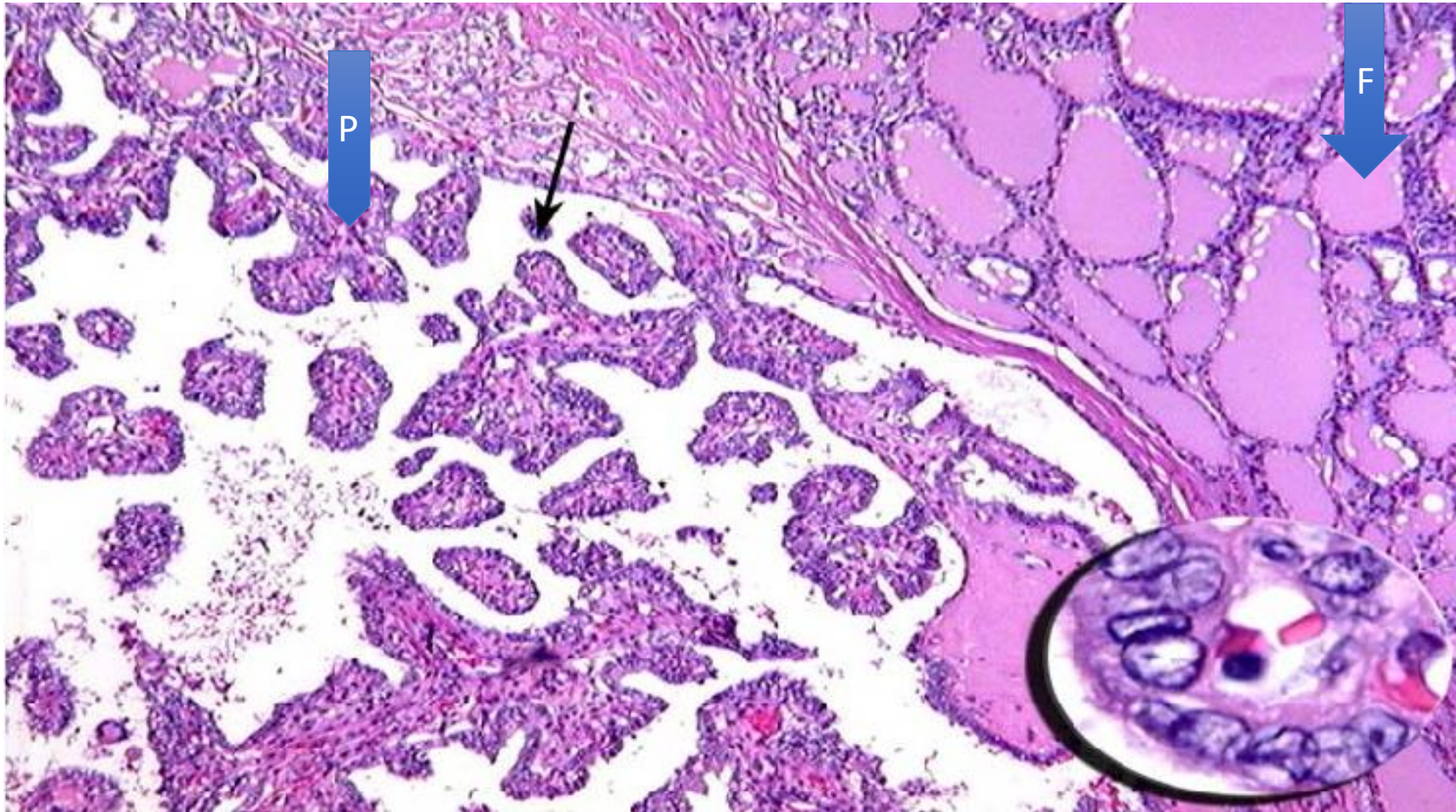
Parathyroid adenoma



Endocrine atypia .. This is not necessarily a malignant feature.



Papillae in papillary thyroid carcinoma(P). Note the difference from the normal follicles (F)

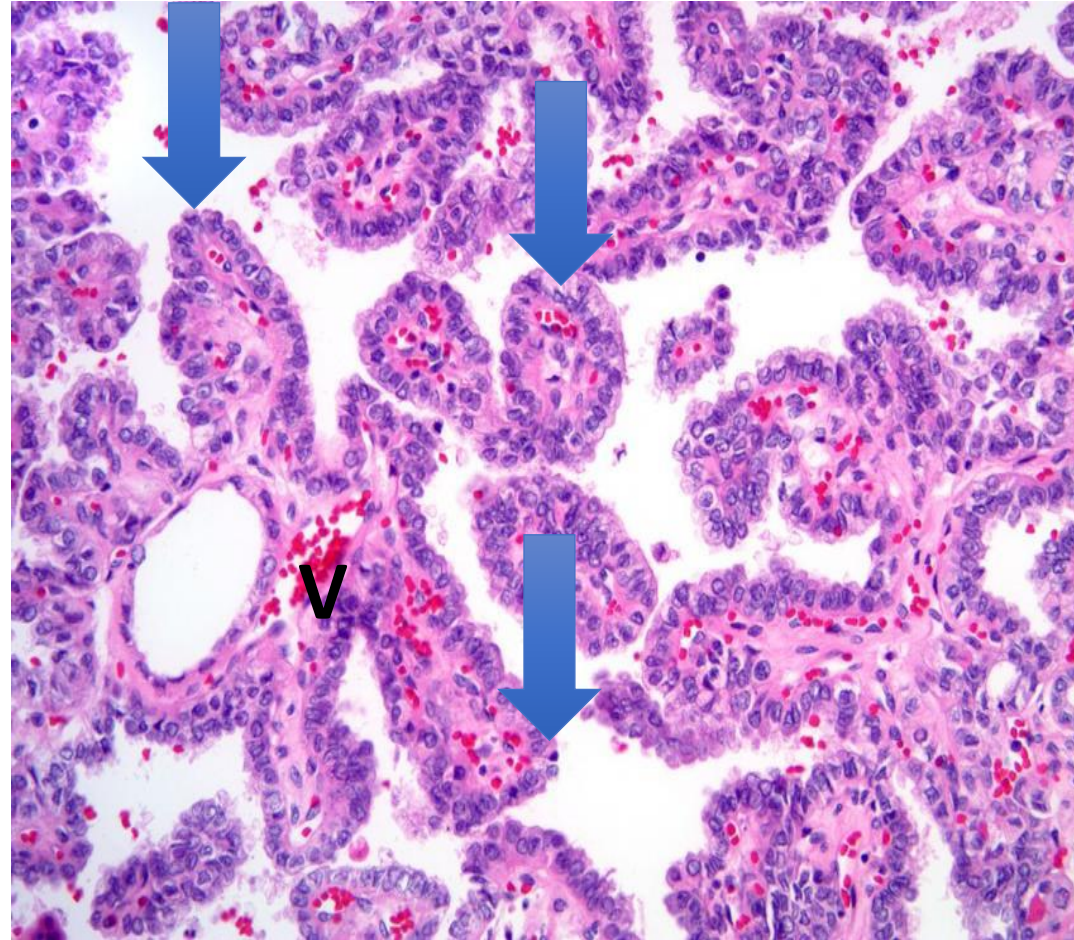


Papillae

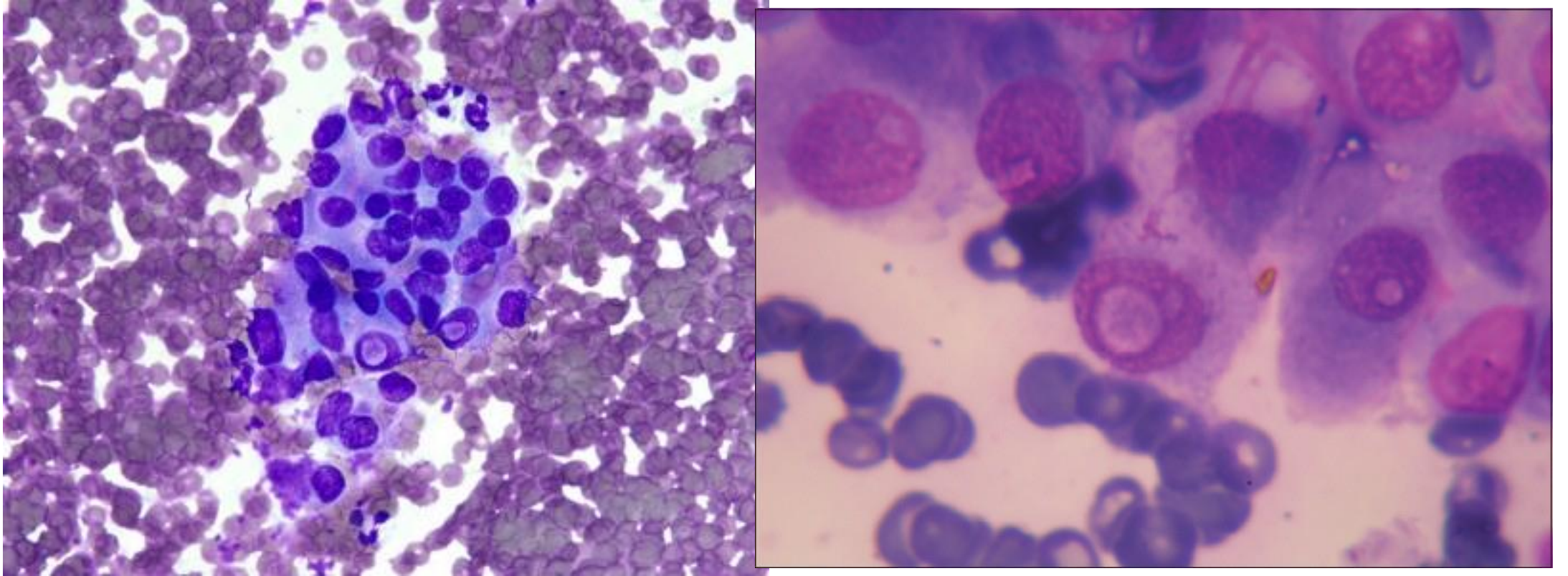
- Papillae (arrows) are finger-like projections covered by epithelial cells (the blue dots around the papillae).

- The papillae have fibro-vascular cores (central region which is fibrous and contains blood vessels (V))

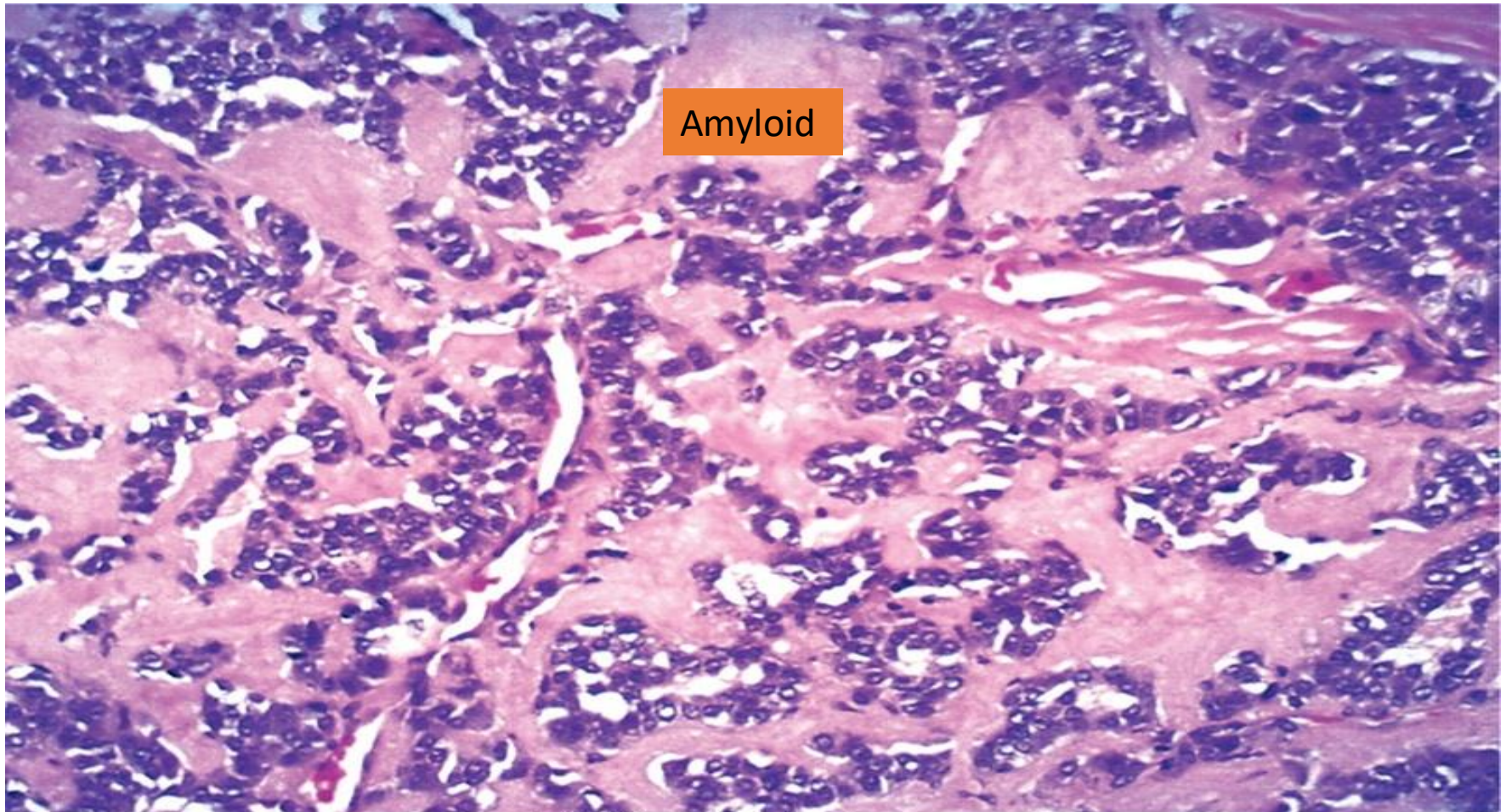
Note: all the red dots in the pic are red blood cells within the vessels.



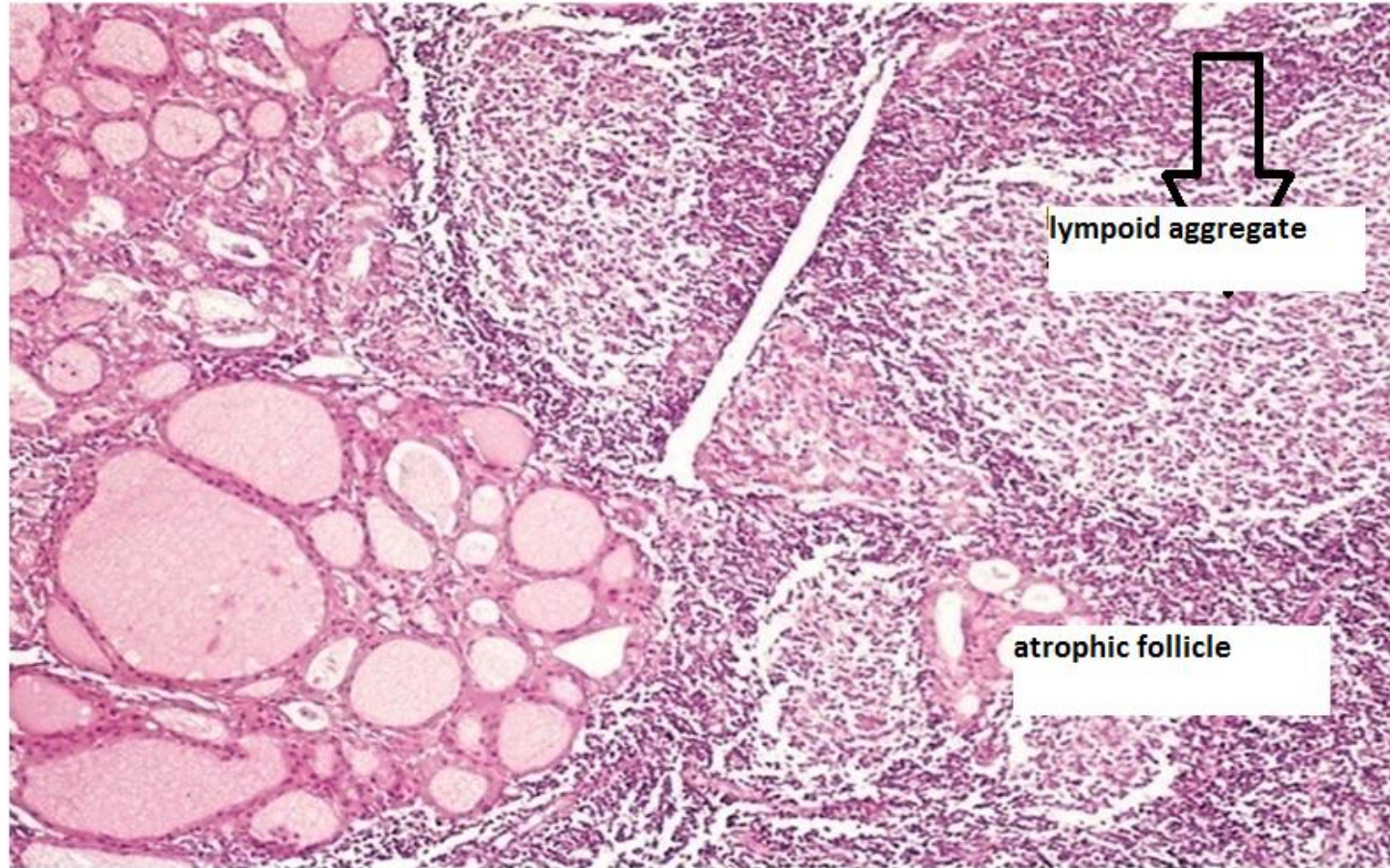
Inclusions in papillary thyroid carcinoma.



Medullary carcinoma, note the amyloid.



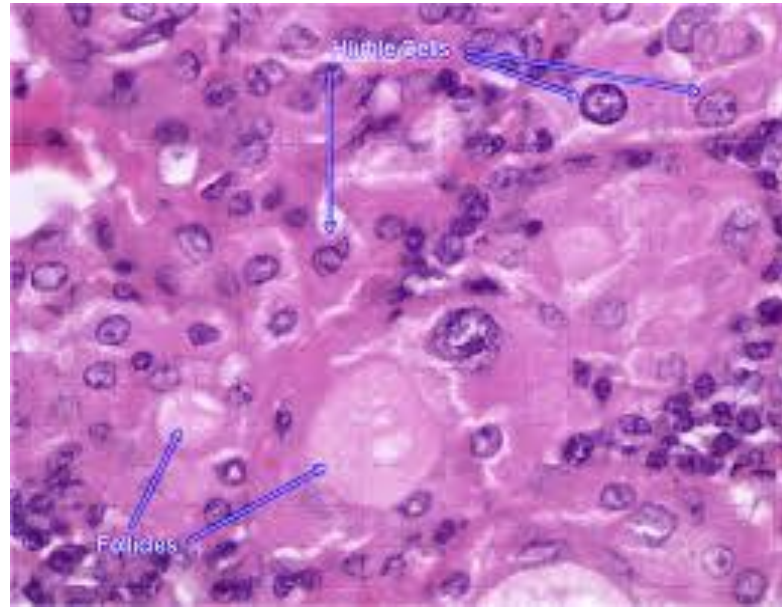
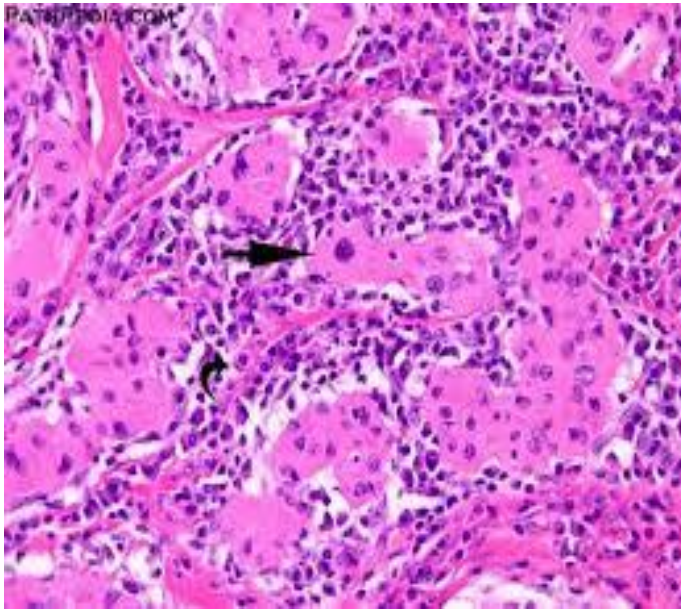
Hashimoto thyroiditis: lymphoid follicles and atrophic follicles



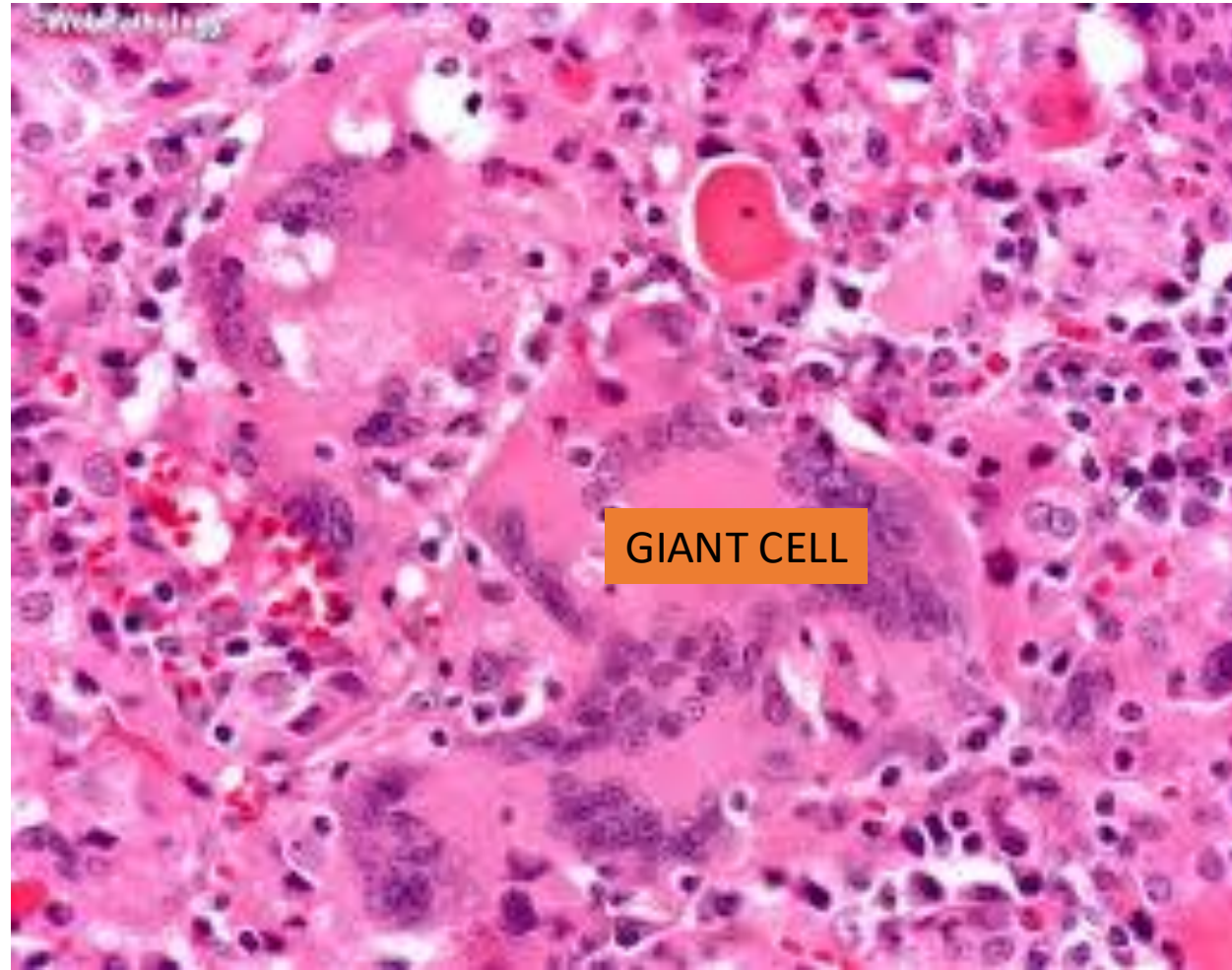
lymphoid aggregate

atrophic follicle

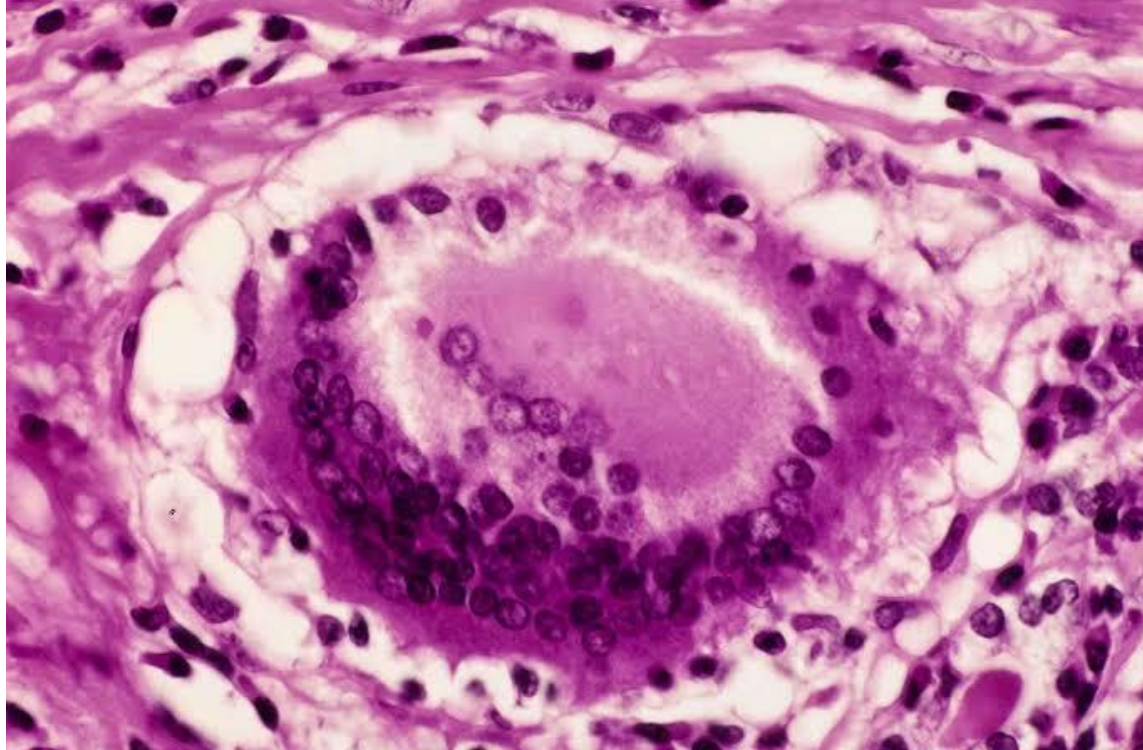
Hurthle cells in Hashimoto thyroiditis: large cells with abundant eosinophilic cytoplasm, due to increased mitochondria



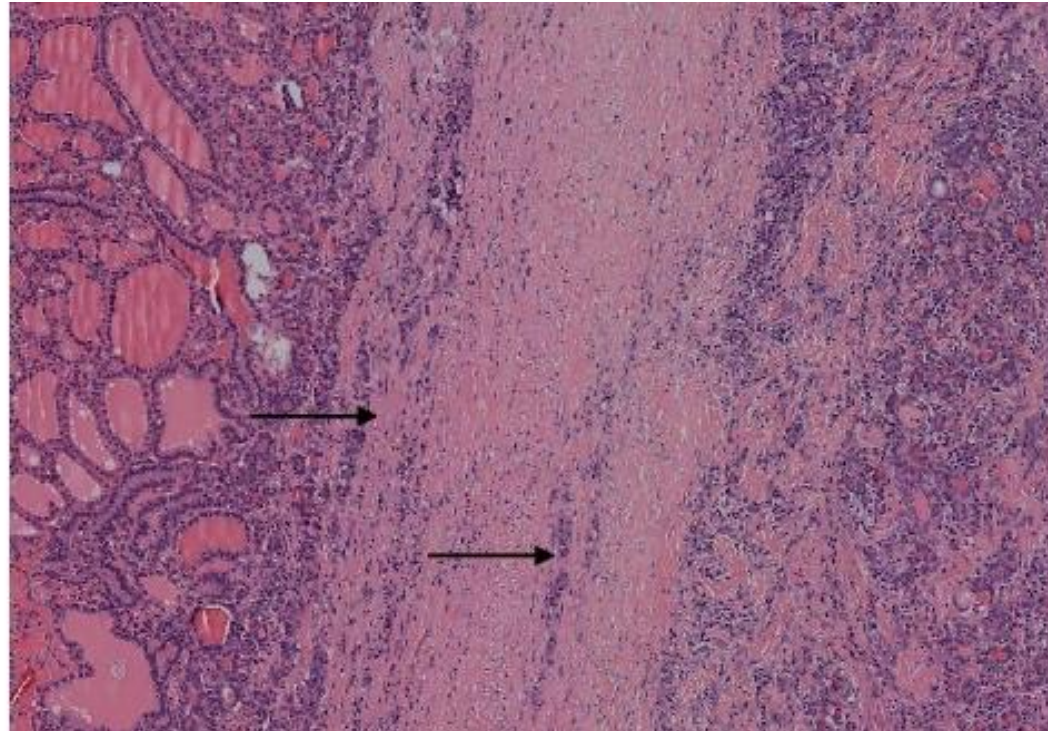
Subacute granulomatous thyroiditis



Giant cell in subacute granulomatous thyroiditis



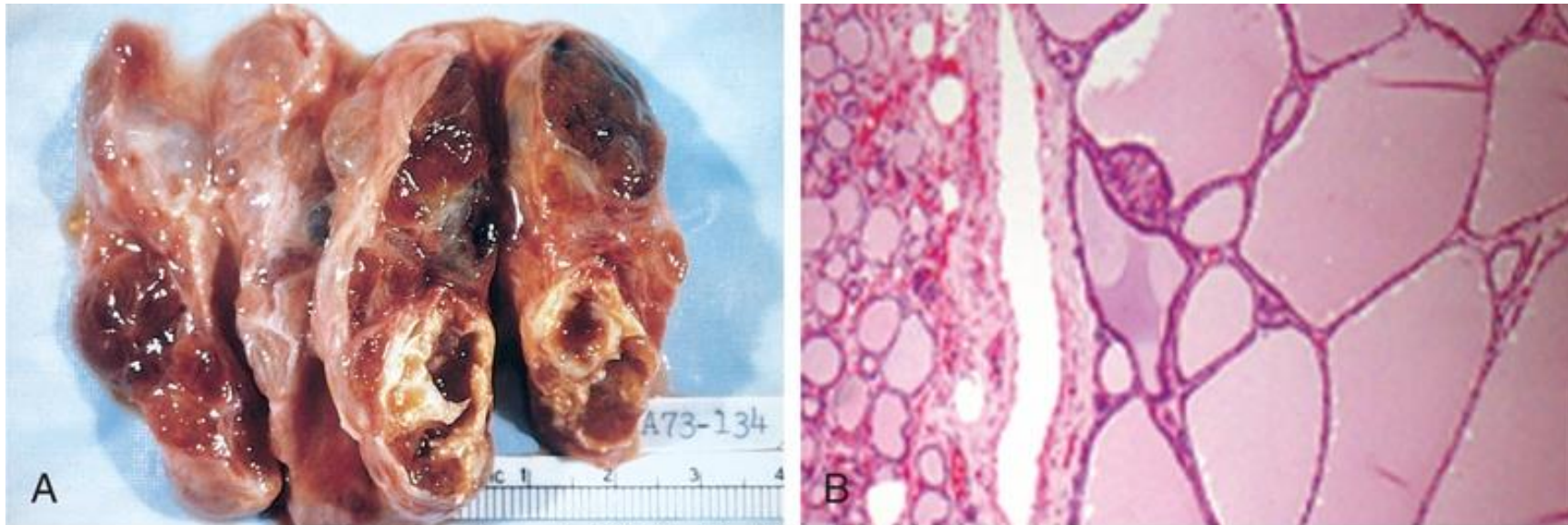
Riedel thyroiditis: fibrosis



multinodular goiter

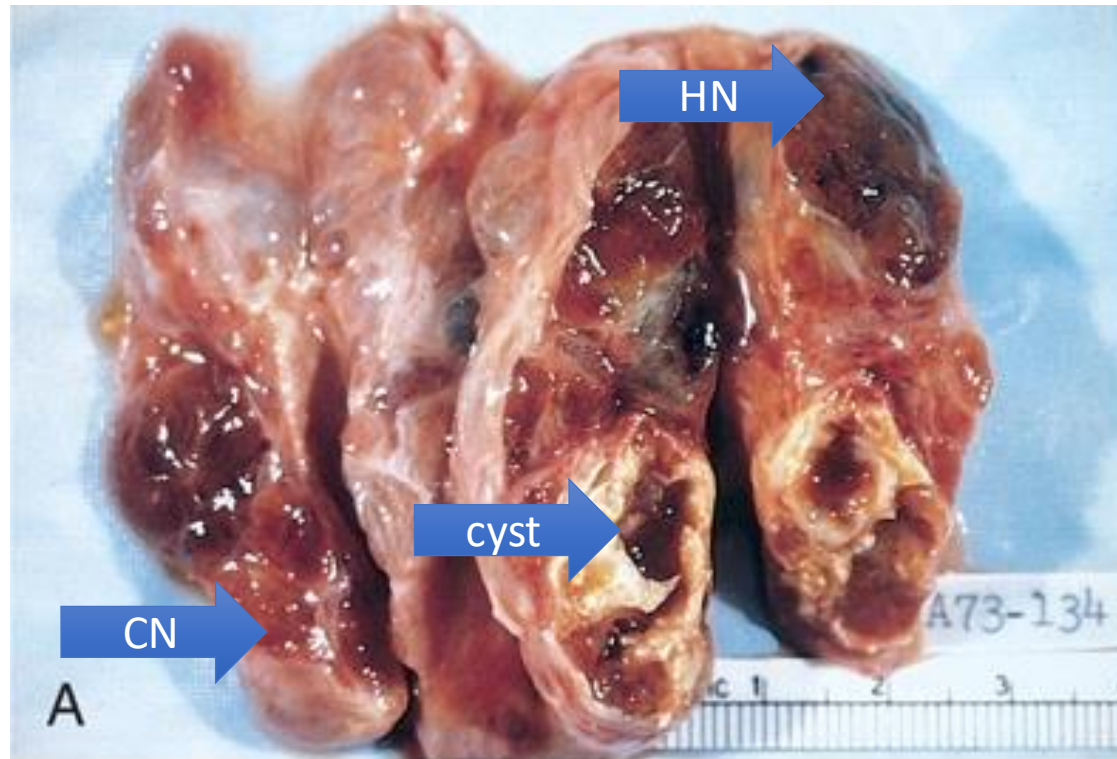


- Multinodular goiters **cause multilobulated, asymmetrically** enlarged glands . Old lesions often show fibrosis, hemorrhage, calcification

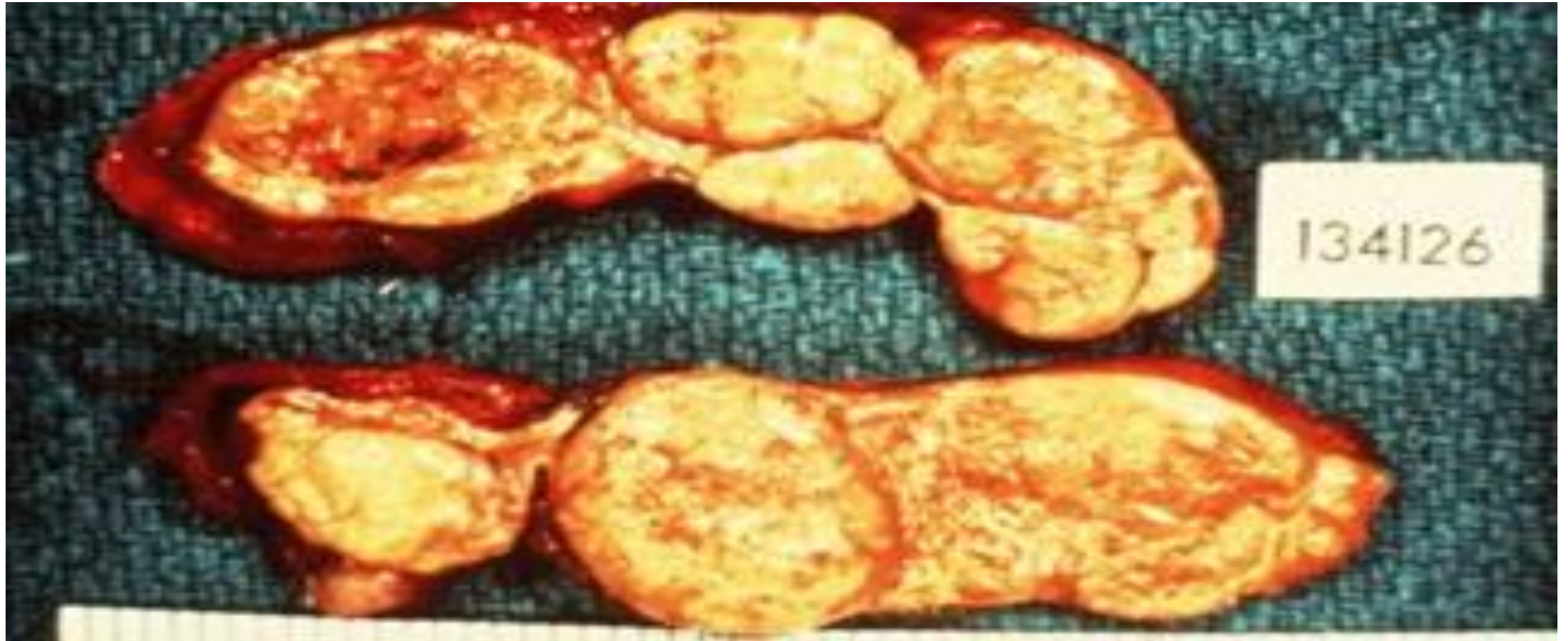


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Multinodular goiter: thyroid shows several nodules, some are hemorrhagic (HN), others contain colloid (CN) and some become cystic.



Adrenal gland: Nodular cortical hyperplasia



Adrenocortical adenoma

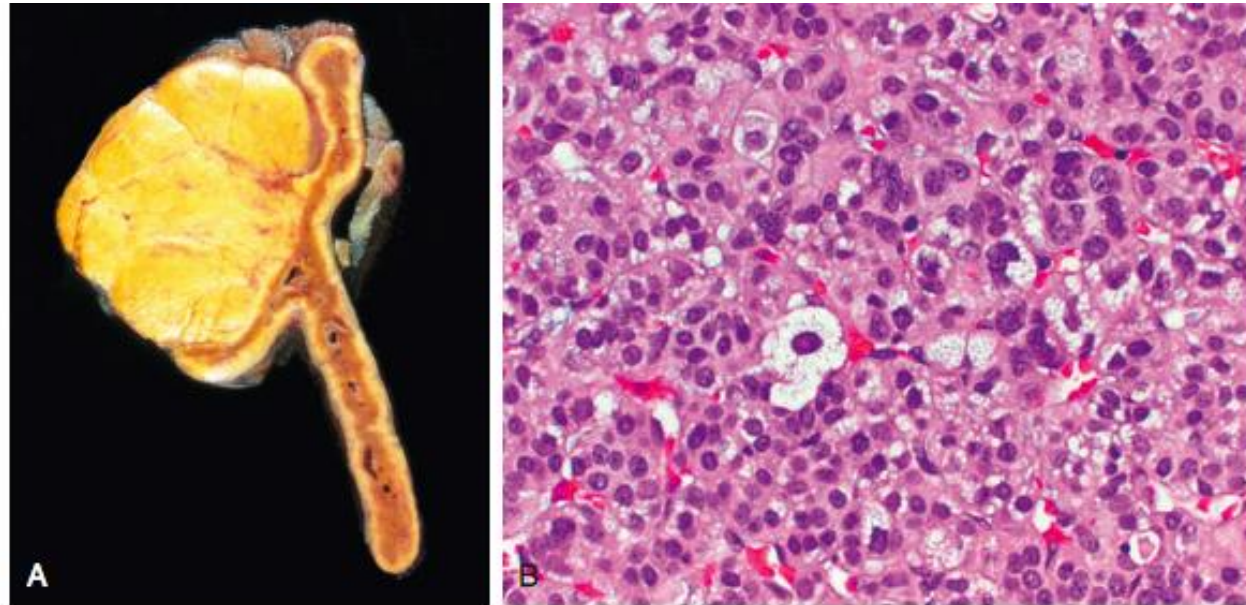


Fig. 20.37 Adrenocortical adenoma. (A) The adenoma is distinguished from nodular hyperplasia by its solitary, circumscribed nature. The functional status of an adrenocortical adenoma cannot be predicted from its gross or microscopic appearance. (B) Histologic features of an adrenal cortical adenoma. The neoplastic cells are vacuolated because of the presence of intracytoplasmic lipid. There is mild nuclear pleomorphism. Mitotic activity and necrosis are not seen.

Adrenocortical adenoma



pheochromocytoma

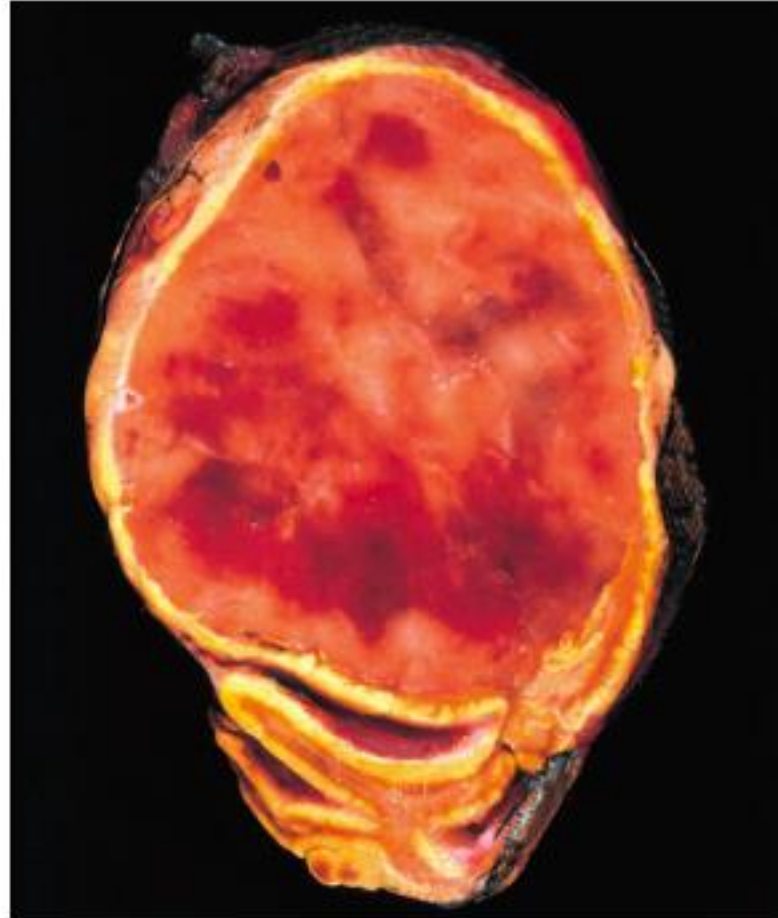


Fig. 20.44 Pheochromocytoma. The tumor is enclosed within an attenuated cortex and demonstrates areas of hemorrhage. The comma-shaped residual adrenal gland is seen (*lower portion*).