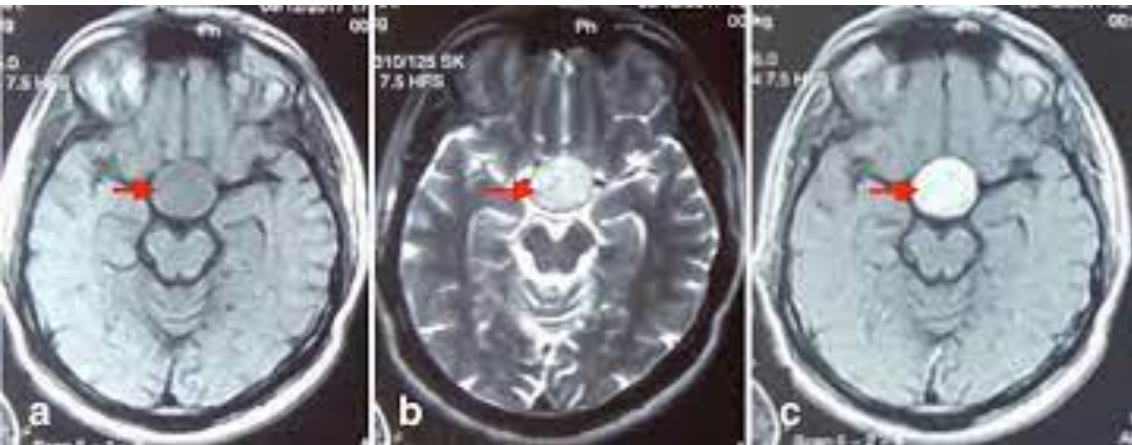


# PBL-2-Endocrine-2022

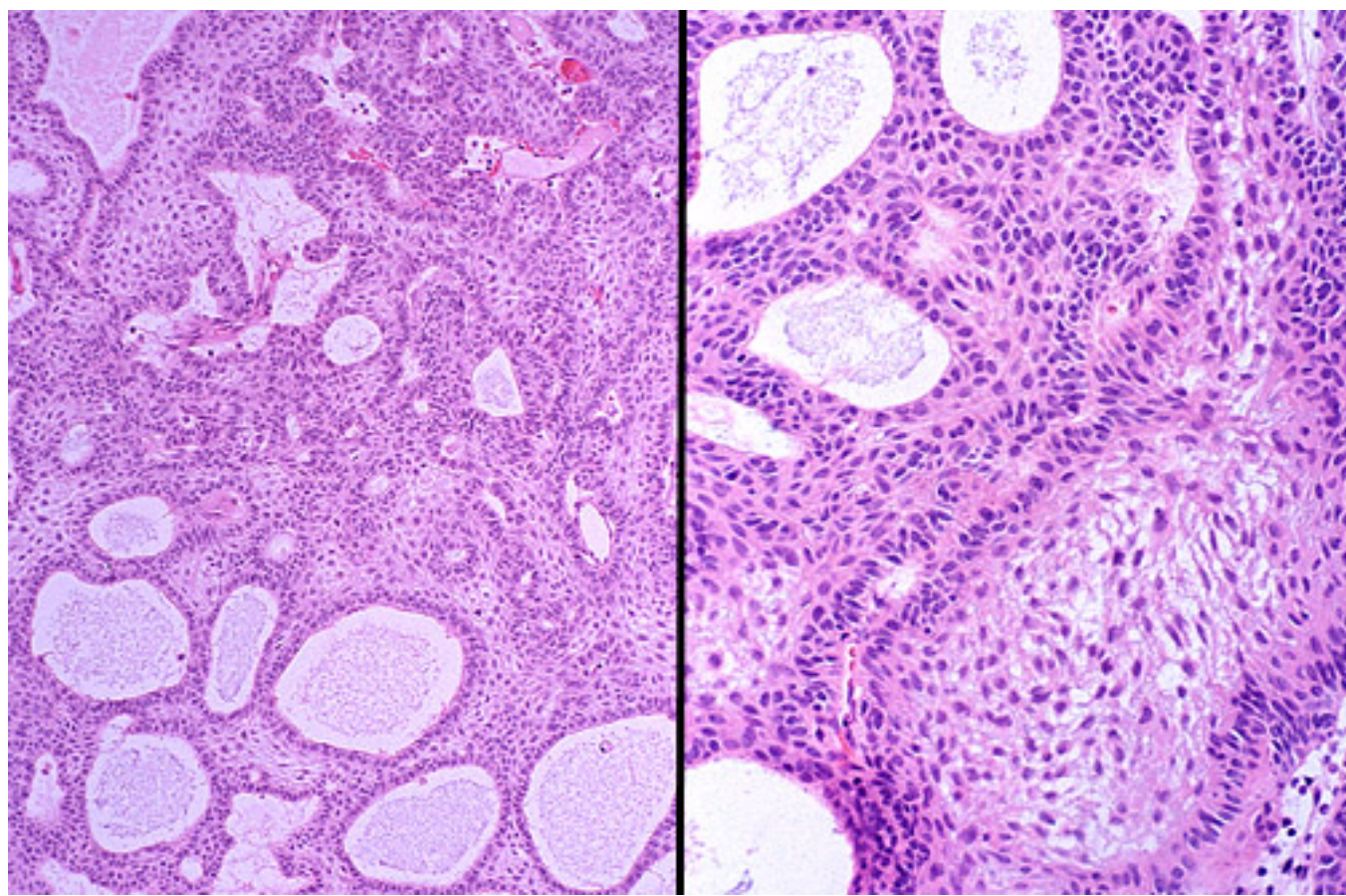
Dr. Esraah Alharris

## Case 1

A 31-year-old woman, who has two healthy children, notes that she has had no menstrual periods for the past 6 months, but she is not pregnant and takes no medications. Within the past week, she has noted some milk production from her breasts. She has been bothered by headaches for the past 3 months. After nearly hitting a bus while changing lanes driving her vehicle, she is concerned with her vision. An optometrist finds her lateral vision to be reduced. On physical examination she is afebrile and normotensive.



CT scan for the patient: **image shows hypointense sellar lesion with parasellar extension. (b) image shows hyperintense sellar lesion with parasellar extension. (c) CT with contrast showing diffuse contrast enhancement of the lesion.**



The tumor seen here at medium and high power. It forms an expanding mass arising in the sella turcica that erodes bone and infiltrates into surrounding structures. histologically it appears squamoid and columnar epithelium lining cystic spaces filled with oily fluid.

Q.2. What is the most probable diagnosis?

Q.3. what is the prognosis and why?

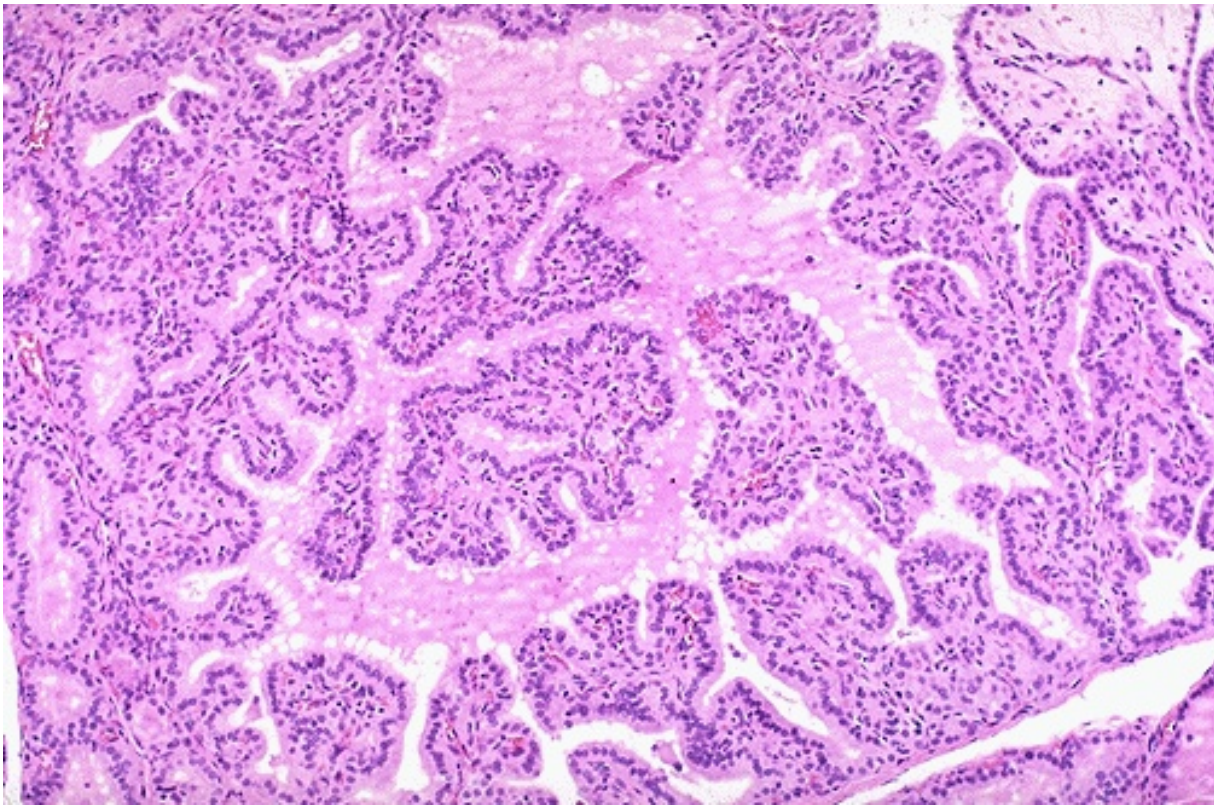
Answer:

The most common mass lesion of the pituitary in an adult is an adenoma that secretes prolactin, and this explains the amenorrhea-galactorrhea that she has been experiencing. A large sellar mass can compress the optic chiasm to produce bitemporal hemianopsia.

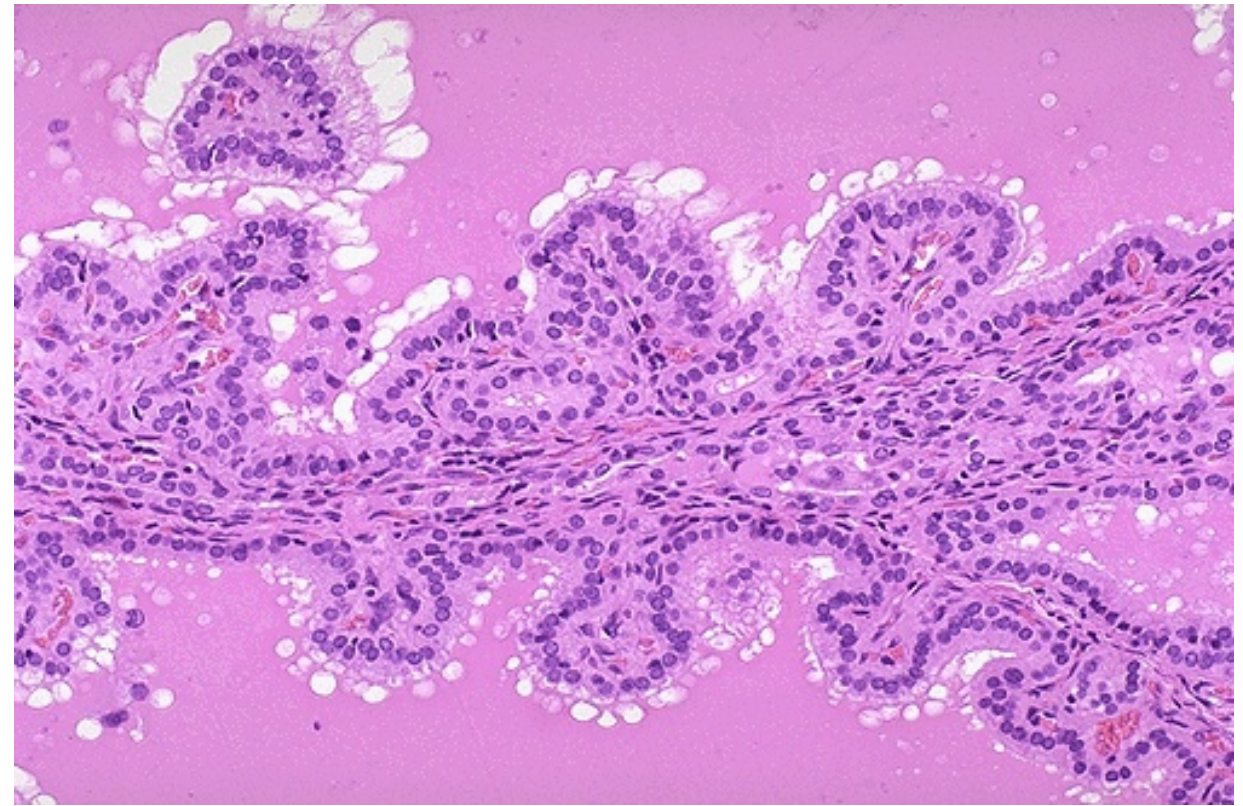
Prognosis is bad due to presence of large tumor.

## Case 2,

A 28-year-old woman has had difficulty concentrating at work for the past month. She is constantly getting up and walking around to visit co-workers. She complains that the work area is too hot. She seems nervous and often spills her coffee. She has been eating more but has lost 5 kg in the past 2 months. On physical examination her temperature is 37.5°C, pulse 101/minute, respiratory rate 22/minute, and blood pressure 145/85 mm Hg.



At low power microscopically, note the prominent **infoldings** of the hyperplastic follicular epithelium.



At high power, the tall columnar thyroid epithelium lines the **hyperplastic infoldings** into the colloid. **clear vacuoles** in the colloid next to the epithelium where the increased activity of the epithelium to produce increased thyroid hormone has led to scalloping out of the colloid in the follicle.

Q.2 what is the pathogenesis of the disease.

Q.3 what is the most important pathological feature?

Q.4 what is the other laboratory finding in this patient?



She has Graves disease with hyperthyroidism.

Pathologica features: the tall columnar thyroid epithelium lines the **hyperplastic infoldings** into the colloid. **clear vacuoles** in the colloid next to the epithelium where the increased activity of the epithelium to produce increased thyroid hormone has led to scalloping out of the colloid in the follicle.

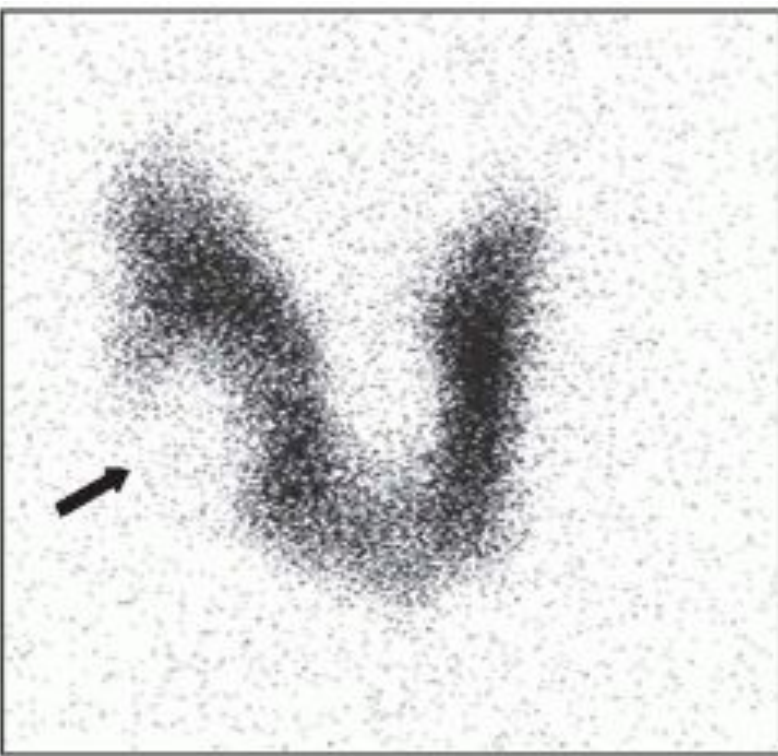
There are both thyroid-stimulating immunoglobulins (TSI) and thyroid growth-stimulating immunoglobulins (TGI) in Graves disease. The amount of thyroid hormone production goes up, suppressing TSH secretion from the pituitary. The diffusely enlarged thyroid gland is double to triple in size, which is still difficult to appreciate on physical examination.

## Case.4

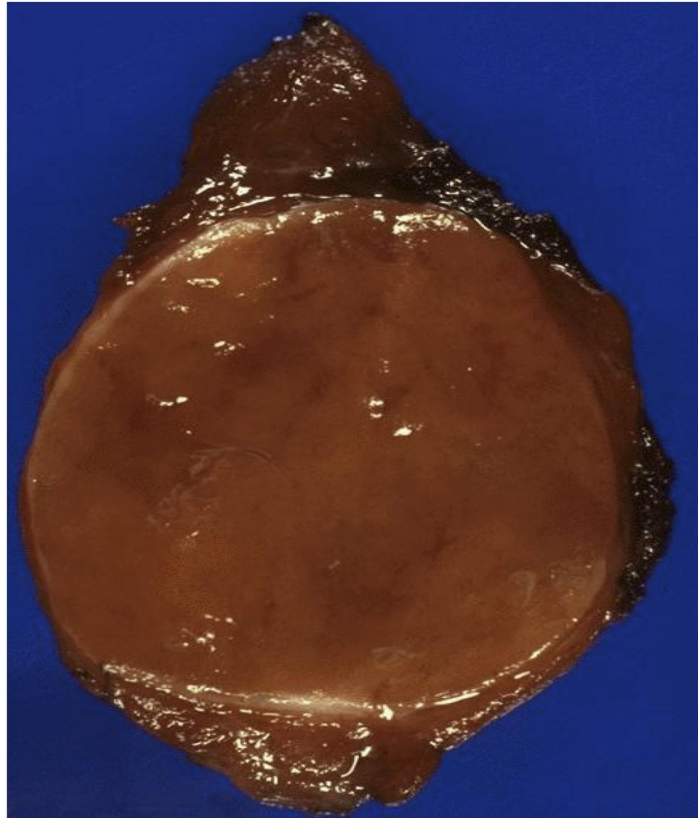
A 47-year-old woman feels a 'lump' in her neck that she didn't notice 5 months before. Her physician palpates a firm nodule about 2 cm in size to the left of midline in the region of the thyroid gland. By scintigraphic scanning this nodule appears 'cold' with normal activity in the surrounding normally sized thyroid gland.

A-What is the most likely diagnosis?

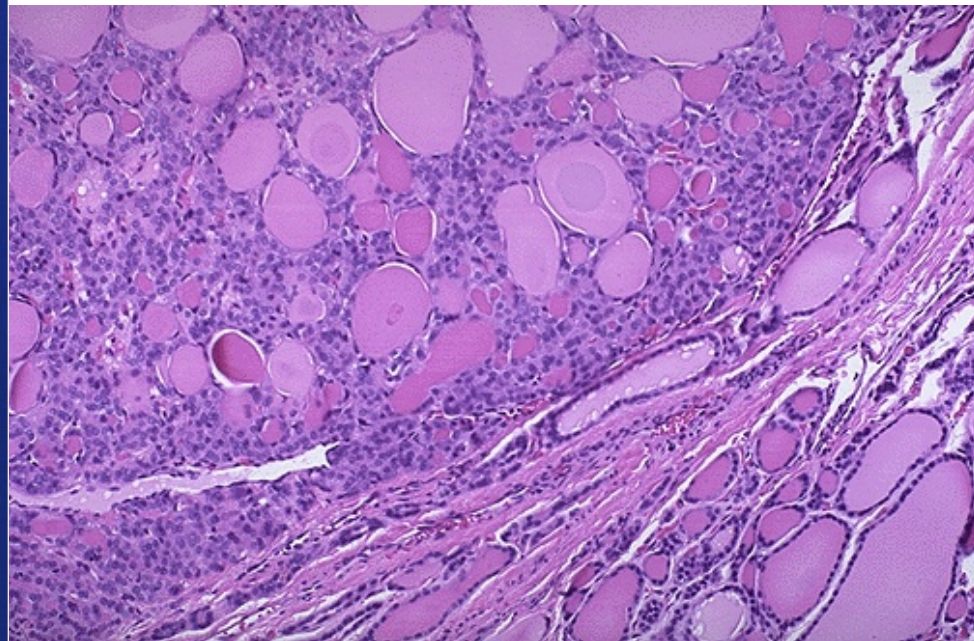
B- What are the gross and microscopical pathological feature?



A "cold" nodule is seen in the lateral aspect of the right lobe (*arrow*).



Encapsulated, homogeneous tan cut surface, residual thyroid at both poles



At the center to upper left. There is a well- differentiated tissue

# Answer

Follicular adenoma

The pathological features has been mentioned in the slide

