



Yarmouk University
Faculty of Medicine
👑 Glory Batch 👑

The Endocrine System

Mid Exam

Collected by:

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Edited by:

Aws Na'amneh

PATHOLOG-Dr. Doa'a

1. One of the following conditions has high levels of plasma IgG4:
 - palpation thyroiditis
 - graves disease
 - **Riedl's thyroiditis**
2. Which one of the following is characterized by calcitonin secretion:
 - anaplastic ca
 - follicular ca
 - **medullary ca**
3. Which one of the following is NOT typical for graves disease:
 - peripheral scalloping
 - monocyte infiltration of the retro-orbital tissue
 - **extensive monocyte infiltration of the thyroid parenchyma**
 - anti TSH receptor Abs
 - thyrocytes hyperplasia
4. Papillary ca initially metastatizes by the blood stream:
 - True
 - **False**
5. One of the following is INCORRECT about craniopharyngioma:
 - it resembles adamantinoma
 - develops from Rathkes pouch remnants
 - affects children and adolescence
 - **usually malignant tumor**
 - may be cystic or calcified
6. A ptn admitted to the hospital with 170/110 mmHg **المهم ضغطه عالي**, they found Rt.adrenal gland adenoma, which one of the following biochemical assays fits with this case:
 - hyponatremia
 - hyperkalemia
 - hypoglycemia
 - **low renin level**

7. One of the following is not true about Sheehan's syndrome:

- occurs due to post-partum hemorrhage
- loses most of adenohypophysis tissue
- 1st sign is agalactia
- **mental retardation**

8. case about graves, wt. loss, exophthalmos, diffuse radioactive iodine uptake:

- **anti TSH ab**
- ionizing radiation

9. Goiter means:

- neoplastic enlarged thyroid gland
- inflammatory enlarged thyroid gland
- thyroid atrophy
- All the above
- **none of the above**

10. Congenital adrenal hyperplasia is characterized by which enzyme deficiency:

أو كانت كيس ،newborn with ambiguous genitalia مو متذكرة

- hydroxylase 17_
- hydroxylase 11_
- **hydroxylase 21_**

11. Advanced glycosylated end products, which are products of nonenzymatic reaction that contributes to:

- diabetes neural degeneration
- **diabetes atherosclerosis**

12. All the following is true about acromegaly, EXCEPT:

- increased growth hormone production
- Pituitary adenomas
- increased bone & soft tissue growth
- **occurs before epiphyseal closure**

13. Psammoma bodies are associated with:

- medullary ca
- anaplastic ca
- **papillary ca**

14. All the following are TYPICAL findings in ptn with parathyroid adenoma:

- seizures
- kidney stones
- osteitis fibrosa cystica
- **hypocalcemia**

15. VMA excreted with urine is diagnostic for;

- Conn's syndrome
- **Neuroblastoma**

16. The most common cause of Cushing's syndrome is:

- Pituitary adenoma
- Adrenal adenoma
- **Exogenous steroid therapy**

ANATOMY - Dr.Ramada

1. Which the following is true about endocrine gland:

- the effect is slow
- secretes their hormones into blood
- pass from the kidney
- **all are correct**

2. all of the following are related to the lateral surface of thyroid gland ,except:

- sternohyoid Muscle
- anterior border of sternocleidomastoid muscle
- Sternothyroid muscle.
- **cricothyroid muscles.**

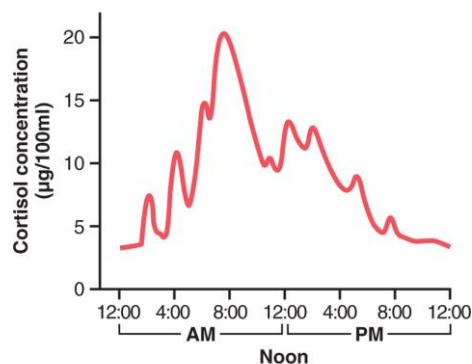
3. which of the following is not true regarding Adrenal glands:

- **they are paired yellowish intraperitoneal endocrine glands that sit at the kidneys just above the level of the last thoracic vertebra**

- Perirenal fat that separated them from the kidneys
 - pancreas is anterior to LT gland
4. somatostatin is secreted from:
- Beta cells
 - **delta cells**
 - alpha cells
 - pp cells
5. which of the following is not true about PTG:
- Superior parathyroid gland are located approximately 1 cm above the intersection of the inferior thyroid artery and the recurrent laryngeal nerve.
 - the nerves supply PTG are vasomotor, not secretomotor
 - **principal cells are less basophils**
 - start producing hormones by 7th week

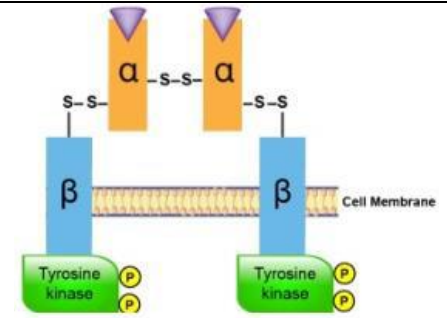
PHYSIOLOGY - Dr.Fatima

1. Which one of the following is an example on neuroendocrine reflex:
- decrease TSH level in graves disease
 - LH surge before ovulation
 - **suckling and breast feeding**
2. Which one of the following statements truly describe the insulin & glucagon relationship:
- glucagon inhibits insulin release
 - insulin stimulates glycogenolysis
 - **increase amino acid plasma levels stimulate secretion of both (insulin and glucagon)**
3. Which one of the following statements is true:
- insulin increase cholesterol and phospholipids plasma levels
 - **insulin stimulates TGs deposition in the adipose tissue**
4. this pic represents? **cortisol**



5. regarding the following pic, which of the following is true:

- **Activation of receptor lead to autophosphorylation of some of its residues**



6. Which one of the following statements is CORRECT about bone development:

- RANKL are expressed on osteoclast surface
- **fibroblasts differentiate into osteoblast under the effect of ossification specific transcription factors**
- osteoprotegrin stimulates osteoblast development
- mononuclear colony stimulating factor is required for osteoblast development

الخيار الرابع أظن كمان صحيح

7. Which one of the following statements is true:

- **calcitriol increases phosphate absorption by increasing NaPi_IIb receptors transcription and insertion on the intestinal apical membrane**
- PTH stimulates calcitriol production by increase 21 alpha hydroxylase activity

8. The correct statement regarding PTH activity is:

- **directly stimulate bone resorption and Ca mobilization**
- increase the Ca urinary reabsorbtion rather than excretion
- enhances TRPV6 activity

أول خيارين أظن صحبجات برضو

9. The correct statement regarding GH activity:

- increase blood glucose level by decrease in insulin secretion
- **has ketogenic effect**

10. The correct statement regarding somatomedin is:

- has the opposite action of insulin
- it is not necessary for chondrocyte development
- **its plasma level is in close relation with GH secretion level**

11. Which of the following statements is true about prolactin:

- the rate of secretion late in leuteal stage is higher than that in follicular one
- after the childbirth, prolactin level returns to its normal non pregnant level promptly
- **found in both M & F**

12. The most potent stimulator for aldosterone release is:

- hypovolemia
- hypernatremia
- **hyperkalemia**
- ACTH

13. One of the following statements is FALSE about ADH:

- it is involved in concentrated urine production
- osmoreceptors shrinkage stimulates ADH production
- alcohol inhibits ADH secretion
- signals from baroreceptors inhibits ADH secretion
- **acts through phospholipase c/cAMP/ PKA pathway**

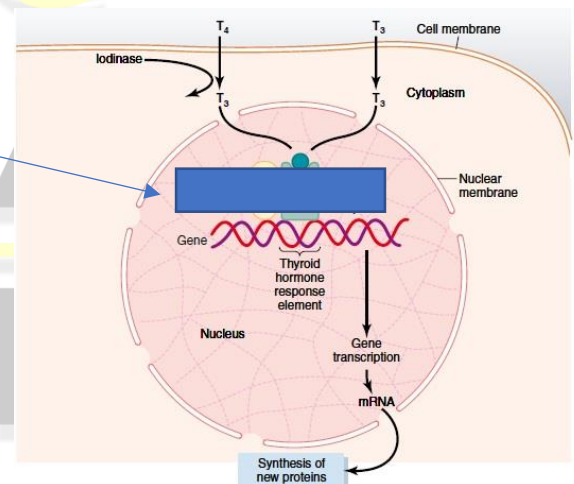
14. One of the following statements is FALSE about aldosterone:

- excessive aldosterone level cause muscle weakness
- high aldosterone level increase plasma Na level minimally
- aldosterone acts on the collecting ducts principal cells
- **excessive level results in metabolic acidosis**

15. the doctor asked what is this? **RXR**

16. One of the following statements is correct regarding thyroid hormone action:

- decrease protein catabolism rate
- almost all peripheral triiodothyronine is converted into thyroxine
- **stimulate both glycolysis and gluconeogenesis**



17. which of the following is true?

- ADH and oxytocin are synthesized and secreted by posterior pituitary gland
- hypothalamus is connected by vascular-link to anterior and posterior pituitary gland
- magnocellular neurons are glial like cells that support terminal nerve fibers and endings descending from the hypothalamus
- **the cells that synthesize ADH and oxytocin can be considered as neuroendocrine cells**

18. Which one of the following statements is true:

- G protein has homotrimeric
- phospholipase C converts DAG into IP3
- **Ca-calmodulin second messenger is linked sometimes with phospholipid membrane products**

19. One of the following statement is FALSE:

- **thyroid hormones are sorted in small cytoplasmic vesicles**

BIOCHEMISTRY - Dr.Zaid

1. Which of the following determine the concentration of hormone on a target cell: تكرر مرتين: ١

- the rate of synthesis and secretion of the hormone
- the dissociation constant of hormone with specific transport
- the conversion of inactive form to fully active form
- the rate of clearance of hormone from plasma
- **all of above**

2. An orphan receptor:

- is an apparent receptor that has a similar structure to other identified receptors
- its endogenous ligand has not yet been identified
- if the ligand for an orphan receptor is later discovered, the receptor is referred to as "adopted"
- **all of above**

3. the enzyme that converts Norepinephrine into epinephrine is :

- hydroxylase
- **PNMT (phenylethanolamine_N_methyl transferase)**
- peroxidase
- decarboxylase

4. the cAMP second messenger activate which of the following:

- PLC
- PKC
- **PKA**

5. the importance of P450 sys in mitochondria is :
- **conversion of cholesterol into pregnenolone**
 - transport of cholesterol to inner membrane of mitochondria
 - alternate the use of enzymes...
6. all of the following about G-protein coupled receptors are correct except:
- alpha subunit binds to GTP or GDP regarding the effect
 - These receptors typically have seven hydrophobic plasma membrane-spanning domain
 - **beta subunit binds and activates the effector**
7. DHT is result from testosterone by the action of which enzyme:
- **alpha reductase**
 - aromatase
8. the difference between Direct and Indirect ELISA is:
- **primary and secondary added to indirect**
 - addition of chromogen
 - ag is attached passively to plastic solid phase
9. Polypeptide Hormones:
- cortisol and catecholamine
 - act through hormone response element
 - **bind to cell membrane receptor**
10. during Adrenal steroidogenesis , cortisol synthesis needs 3 hydroxylases enzymes found in:
- glomerulosa , fasciculata
 - **reticularis , fasciculata**
 - medulla , glomerulosa
 - reticularis ,glomerulosa
11. the cell membrane receptor mechanism to influence the gene transcription is :
- those nuclear receptor work with or -in same manner -of hormone receptor
 - regulatory gene bind with transcription factors
 - **all the above**

PHARMACOLOGY Dr. Romany

1. The steroid that has the least Na retention effect is;
 - fludrocortisone
 - hydrocortisone
 - prednisone
 - **dexamethasone**
2. Sulfonylureas administration will not be effective in lowering BG level in:
 - Type II DM
 - **Type I DM**
 - gestational DM
 - non diabetic
3. Suppose that you are gynecologist and a 4 years female is admitted to your clinic complains from developing breasts and have menstrual cycles, you will treat her by single monthly injection of which of the following drugs:
 - **leuprolide acetate**
 - gosareline
 - fillotropin
4. One of the following statements is INCORRECT ;
 - **preprandial regular insulin and NPH at bedtime is the best regimen for type 1 DM ttt**
 - salicylates potentiate sulfonylureas activity
 - meglitol is not used in ptn with intestinal obstruction
5. Only one of the following statements is true;
 - **nateglinide has rapid onset of action and useful to regulate postprandial hyperglycemia**
 - sitagliptin and exantide are insulin sensitizers with on role in increasing insulin release
 - sulfonylureas act as k channel openers
 - cyclost regulates postprandial hyperprolactinemia throughout the day by increase insulin release
6. A ptn had thyrotoxicosis previously, comes to you now with hypothyroidism, the most likely drug that the ptn has been treated with and it is responsible for this case is:
 - PTU

- Iodide
 - **radioactive iodine**
7. The most commonly used drug to stimulate fetal lungs maturity is;
- triamcinolone
 - hydrocortisone
 - **betamethasone**
8. If you want to treat a thyrotoxicosis case with rapid onset and for short duration, just for few weeks, the best choice is;
- methamazole
 - ICM
 - **potassium iodide**
9. All the following statements are true, EXCEPT :
- calcitriol modulates the immunity and has anti-tumor effect
 - tetiparatide is recombinant PTH that is used in osteoprosis ttt
 - calcipotriol is used in psoriasis ttt
 - **PTH enhances Ca & phosphate renal reabsorption**
10. Corticosteroids drugs are double edged swords as they result in many complications that are usually reversible once the therapy is tapered to the normal body level, the only IRREVERSIBLE complication is:
- peptic ulcers
 - hypokalemia
 - cushings like syndrome
 - **Avascular bone necrosis**
11. The best regimen for steroids administration that conserves HPA function is:
- dividing the daily dose in two small doses
 - one dose at bed time
 - **alternate day therapy**
12. One of the following statements is correct:
- **cabergoline is the 1st line in hyperprolactinemia management**
 - pegvisomant is used for child dwarfism
 - hMG is derived from menstruating women urine

- contentiously gosareline administration is ovulatory inducer

13. Desmopressin is indicated in which of the following cases:

- nephrogenic DI
- esophageal varices
- **cental night time bed wetting**

14. One of the following statements is true:

- **Metformin is used in unovulatory cycles**
- pioglitazone enhances insulin secretion
- pramlintide is peptide analog that enhances insulin secretion
- glimperide causes severe hypoglycemia

MULTIDISCIPLINARY (intro)- Dr. Zain

1. All of the following are true, EXCEPT :

- TRH → TSH → thyroxine
- GnRH → LH&FSH → sex hormones
- CRH → ACTH → steroids
- **Dopamine ↑ prolactine ↑ milk production**

2. A ptn previously healthy, was seen complaining from polydipsia, polyuria, nocturia with normal BG tests, positive water deprivation test, but show no response to orally ingested desmopressin, what is your diagnosis ;

- DM
- CDI
- **NDI**

PUBLIC HEALTH-Dr. Moawya + SGD- Dr.Zain/Dr. Doa'a

1. Which of the following is not correct:

- 80% of diabetes deaths occur in low- and middle-income countries
- 10 million more adults with diabetes than 2015
- Total deaths from diabetes are projected to rise by more than 50% in the next 10 years
- 16% the increase in diabetic patient (20-79) in 2045

- **the increase in number of people with diabetes in MENE region (20-79) in 2045 is 35%**
2. one of the following is correct:
- **With 34 per cent of Jordanians aged above 25 years living with diabetes (2014).**
 - the prevalence of obesity since 1980-2017 is tripled
 - the prevalence of obese Jordanian children is 17%
 - the prevalence of overweight Jordanian children is 30%
3. one of the policy options to influence diabetes risk, is not true :
- Taxation - Food and Menu labeling
 - **Incentives/promotion for community support for physical activity.**
 - **Regulation of activities in public areas**
4. one of the following is true:
- in the ABCDE management of MeS , C indicate complication monitoring.
 - the percent of MeS patient is decrease as the female age increase
 - **BMI more than 40 considered morbid diabetes**
 - no relation between smoking and insulin resistance
5. ketoacidosis is related to all features, except:
- **hypoglycemia**
 - high acetone in urine
 - common in type 1DM
 - high hydroxybutyrate in blood
6. OGTT is done to patient after fasting for 10 hrs ,
FBG =125, BG 1/2hr=170, BG1hr=210, BG1.5hr= 230, BG2hr= 190 ...these results correlated with condition:
- defect glucose absorption
 - **impaired OGTT**
7. a 27y patient complain of exophthalmos, sweating nausea and diarrhea ,,a diffuse 24-hr radioiodine uptake ...these manifestations due to :
- **antibodies against TSH receptor**

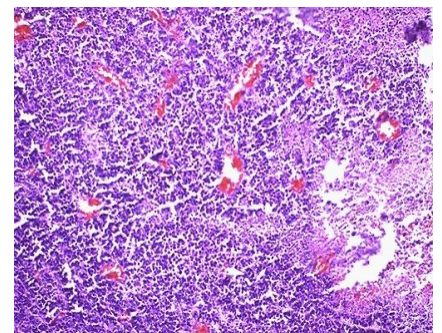
8. hypersecretion of cortisone may cause by an ACTH secreting tumor in pituitary gland, known as:
- Cushing syndrome
 - **Cushing disease**
 - Central Diabetes insidious
9. A 43- year old man, previously healthy, was seen in complaining of polydipsia, polyuria and nocturia during the previous 3 months. (Water deprivation test was positive) Pituitary MRI was normal, no response after desmopressin administration, correlated with:
- **nephrogenic DI**
 - central DI
 - Dipsogenic DI
 - gestational DI
10. monitoring glucose level for 8-12 weeks , :
- **glycosylated Hb**
 - random BG
 - FBG

Lab Questions

Collected by: Romooz mahmoud & Majd bani isma'el

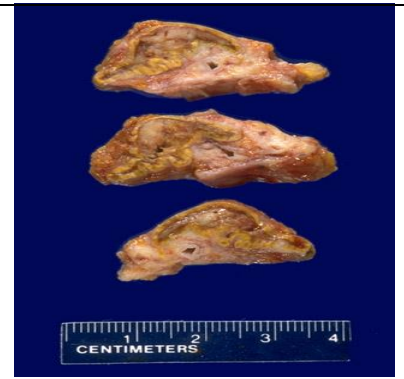
PATHOLOGY Lab

1. The used fixative in this picture is:
- **dichromate fixative**
2. The showed pathological condition is:
- **Neuroblastoma**



3. The most common primary site of this metastatic ca is:

- **lung**



4. This is well circumscribed tumor represents:

- Thyroid ca
- **Thyroid adenoma**



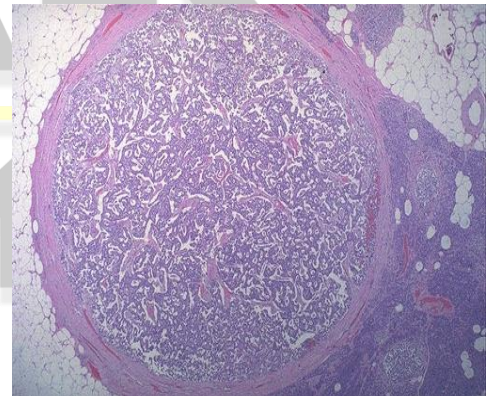
5. This condition is called:

- **Empty sella turcica**



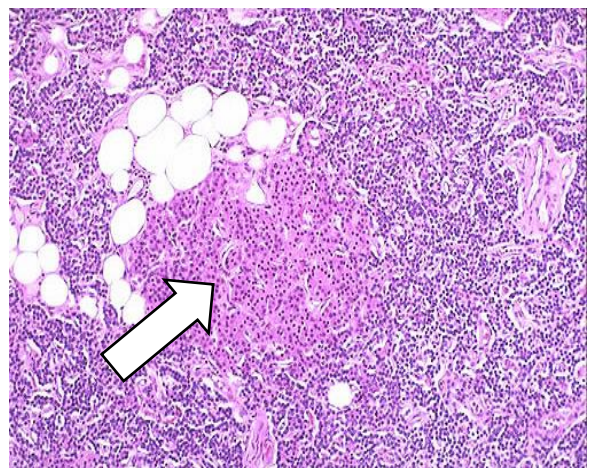
6. If I told you that this patient is represented with hypoglycemic episodes especially after exercises, what is your diagnosis:

- glucagonomas
- gastrinomas pancreatic ca
- **insulinomas**



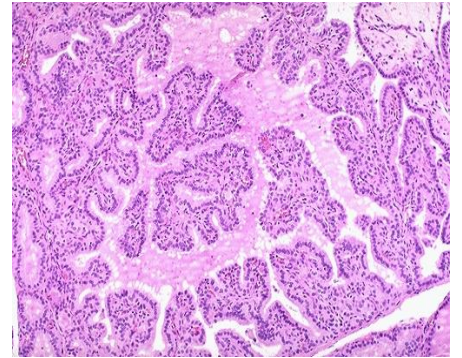
7. The white arrow represents:

- chief cells
- **oxyphil cells**



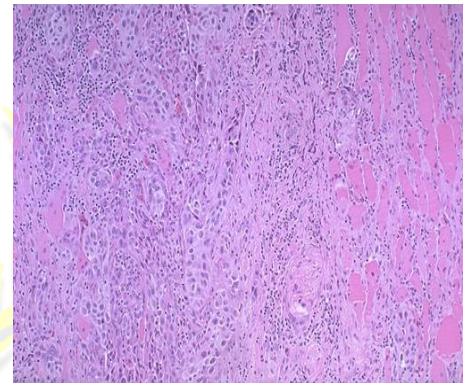
8. The ptn is represented with hyperthermia, wt. loss and tachycardia, your diagnosis should be:

- conn's syndrmoe
- craniopharyngioma
- **Primary thyrotoxicosis (Grave's disease)**



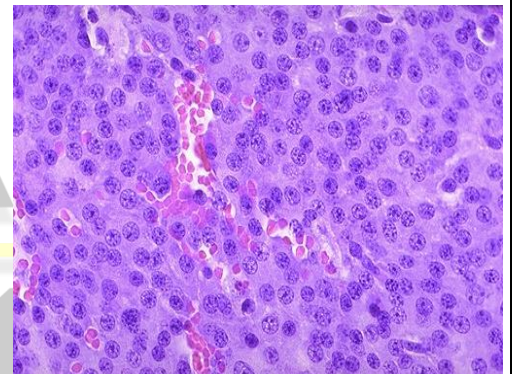
9. The showed picture represents:

- papillary ca
- medullary ca
- **anaplastic ca**



10. This picture represents:

- **Pituitary adenoma**



ANATOMY Lab

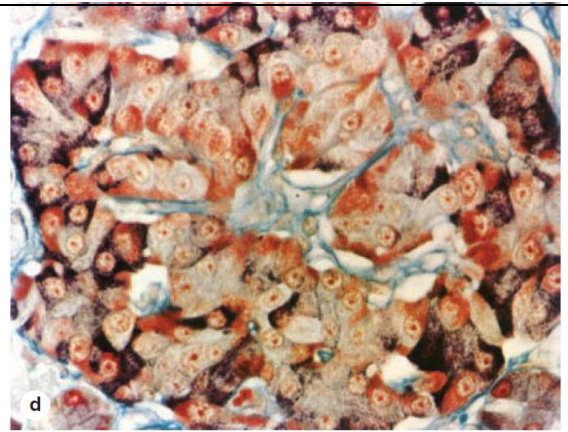
1. The green point represents:

- **pyramidal point of thyroid gland**



2. The brownish orange cells are:

- **Beta cells**



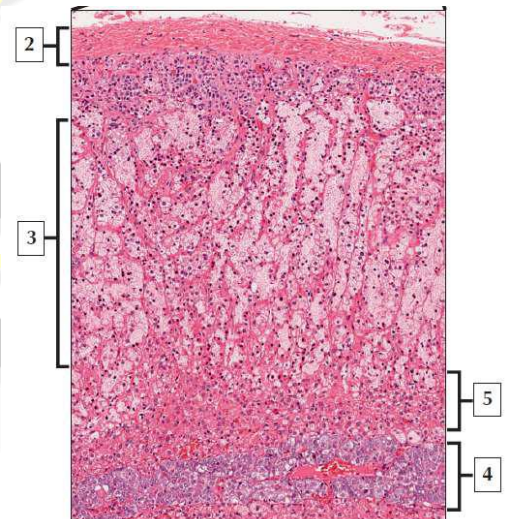
3. The black arrow represents the right suprarenal gland:

- True
- **False**



4. This layer is (number 3):

- **Zona Fasciculata**



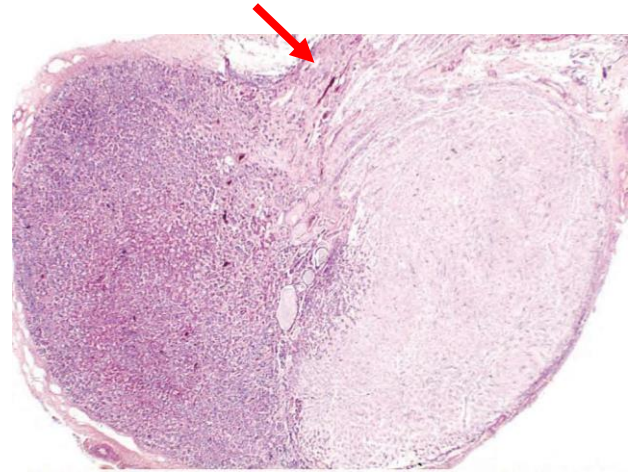
5. The red arrow represents:

- **Parafollicular c cells**



6. This is ;

- Pars tubularis



Good Luck!

