

Final Endocrine Exam Questions

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Pathology

1) SIADH can result from which of the following:

A) Ectopic ADH secreting lung tumor

B) Inflammation in the posterior pituitary

C) Surgical excision of an adenoma of the (anterior)
pituitary

D) Head trauma

Answer : A

2-One of the following can be used to distinguish between pituitary carcinomas and adenomas:

- A) Hyperchromatic nucleus
- B) Increased mitotic activity
- C) Distant Metastasis

Answer : C

3- Which of the following is the incorrect one about Sheehan syndrome:

- A) Causes necrosis in the posterior pituitary
- B) Enlargement is not accompanied by an increase in blood supply
- C) A cause of hypopituitarism
- D) Occuring in the postpartum period
- E) Ischemic injury of the anterior pituitary

Answer : A

4- Which of the following is incorrect regarding parathyroid adenomas:

- A) Encapsulated
- B) Causes hyperparathyroidism
- C) Rich in adipose tissue

Answer : C

5- The most common cause of secondary hyperparathyroidism:

A) Parathyroid Carcinoma

B) Chronic renal failure

Answer : B

6- Which of the following is not a cause of hyperaldosteronism:

A) Renal artery stenosis

B) Hypovolemia

C) Pregnancy

D) Pituitary adenoma

Answer : D

7- All the following are correct about the insulin function except:

- A) Decreases gluconeogenesis
- B) Increases uptake of glucose
- C) Increases glycogen synthesis
- D) Increases lipolysis

Answer : D

8- Which of the following is incorrect about type I DM:

A) Autoimmune

B) Occurs during childhood

C) Insulin Resistance

D) There is genetic predisposition

Answer : C

9- Most common cause of endogenous Cushing's syndrome:

A) Primary adrenal hyperplasia

B) CRH producing tumor

C) Corticotroph cell adenoma

Answer : C

10- Which of the following is incorrect about diffuse cortical hyperplasia:

- A) It occurs in ACTH-dependent Cushing's syndrome
- B) Usually Bilateral
- C) Caused by adrenocortical adenoma
- D) It increases the production of cortisol
- E) Can cause truncal obesity and moon facies

Answer : C

11- Which of the following is not a cause of Addison disease?

A) Tuberculosis

B) Autoimmune destruction

C) Metastatic tumor from the lungs

D) Fungal infection

E) Massive Adrenal Hemorrhage

Answer : E

12- Which of the following is incorrect about pheochromocytoma:

- A) The definitive diagnosis of malignancy is metastasis
- B) If found extra adrenally they are called paragangliomas
- C) Leads to hypotension in 10% of patients
- D) It can be familial
- E) Sudden cardiac death may occur

Answer : C

13- A 2 yr old is presented with cold intolerance short stature and mental retardation, which of the right diagnosis:

A) Gull syndrome

B) Cretinism

C) Conn syndrome

Answer : B

14- A patient with diffuse goiter, thyrotoxicosis, and thyroid stimulating antibodies is also expected to be seen with:

A) Wide open eyelids but not exophthalmos

B) Infiltrative peritibial myxedema

C) Elevated TSH

D) Iodine deficiency as it is the most common cause of the disease

Answer : B

15- A 31 year old woman with recent upper respiratory infection, enters the ER with fever, malaise, and a painful neck, expected histological findings:

A) Hemorrhage with extravasation of colloid

B) Atrophic thyroid follicles

C) Mixed leukocytic infiltrate with granulomatous reaction

Answer : C

16- Which of the following is wrong about Hurthle cell adenoma

A) Eosinophilic cells

B) The cells have plenty of mitochondria

C) Large cells

D) Well encapsulated

E) More aggressive than follicular adenoma

Answer : E

17- The incorrect difference between papillary and follicular carcinoma:

- A) Clear nuclei (Orphan Annie eye) in papillary carcinoma
- B) Psammoma bodies in papillary carcinoma
- C) Hematogenous spread of follicular carcinoma
- D) Iodine deficiency is the cause of papillary carcinoma and not in follicular carcinoma

Answer : D

18- Anaplastic cancer is normally associated with which mutation:

A) ERT

B) (2,3) translocation

C) TP53

D) RET

E) BRAF

Answer : C

19- Amyloid deposition in the thyroid is a sign of:

- A) Papillary carcinoma
- B) Follicular carcinoma
- C) Anaplastic carcinoma
- D) Medullary carcinoma
- E) Lymphoma

Answer :D

20- Which of the following is not related to tissue changes caused by hyperparathyroidism:

- A) Kidney stones
- B) Gallbladder stones
- C) Peptic ulcers
- D) Hypotension
- E) Osteitis fibrosa cystica

Answer : D

Biochemistry

1- One of the following has different amino acid sequences, depending on the secreting organ:

A) Insulin

B) Glucagon

C) Epinephrine

D) Pancreatic peptide

E) Gastrin

Answer : B

2- The enzyme that produces dopamine is a:

- A) Hydroxylase
- B) Methyl transferase
- C) Carboxylase
- D) Decarboxylase
- E) Oxidase

Answer : D

3- Which of the following steroid hormones can be converted to other steroid hormones:

A) Dihydrotestosterone

B) Aldosterone

C) Corticosterone

D) Estriol

E) Cortisol

Answer : C

4- Which of the following is a direct product from aromatase:

A) Testosterone

B) Estradiol

C) Estriol

D) Aldosterone

E) Corticosterone

Answer : B

5- Which of the following can be used to terminate epinephrine signaling:

A) Dissociation of the hormone

B) GTPase activity of G α subunit

C) Hydrolysis of cAMP

D) Phosphorylation of the hormone bound-Receptor followed by binding to β - Arrestin

E) All of the above

Answer : E

6- Which of the following is not a challenge encountered in the biochemistry of the endocrine system:

- A) Hormone binding to the receptor has to be done with high affinity however should also be displaceable.
- B) Many Hormones have the same second messenger.
- C) Hormones have similar structures to substances found in blood and other body fluid.
- D) Hormones are diluted in the blood.
- E) Endocrine hormones have slower response and longer duration in compared to the nervous tissue.

Answer : E

7- Which of the following is a characteristic of steroid hormones:

A) Short half life

B) Hydrophilic

C) Don't need a transporter protein for transportation through the circulation

D) Slow acting

Answer : D

8- Which of the following hypothalamic hormones is the odd one:

A) TRH

B) Growth hormone releasing hormone

C) Dopamine

D) Corticotropin releasing hormone

E) Growth hormone inhibiting hormone

Answer : C

9-Which of the following (characteristics) is not an advantage of using calcium in cellular pathways:

A) Different concentration between different cell compartments

B) Up to 8 bonds to oxygen

C) Binds tightly to proteins

D) Can be transported through different compartments through calcium channels

E) Can cause conformational changes in proteins

Answer : D

10- Which of the following is wrong regarding thyroid peroxidase enzyme:

- A) Inhibited by Cyanide
- B) Inhibited by Propylthiouracil
- C) Oxidation of iodine
- D) Coupling Of threonine
- E) Iodination of thyroglobulin

Answer : A

Pharmacology

1- All the following are the therapeutic uses for hormones except:

- A) Excess hormone secretion
- B) Diagnostic use
- C) Hormone replacement therapy
- D) Bronchial asthma
- E) Treatment for infectious diseases

Answer : E

2- Which of the following is not a toxic effect of T3:

A) Heat intolerance

B) Tremor

C) Precipitation of angina attacks D) Diarrhea

E) Loss of appetite

Answer : E

3-Acute hypoparathyroidism is best treated by administration of:

A) Vitamin D

B) Calcium salts

C) calcitonin

D) Etomidate

E) PTH

Answer : B

4- The drug that is used for the treatment of hypoaldosteronism:

A) Hydrocortisone

B) Dexamethasone

C) Fludrocortisone

Answer : C

5- Which drug is used in the management of high blood glucose and increases the fertility of diabetic females:

A) Metformin

B) Ranirestat

C) Octreotide in low dosage

D) Alocril

Answer : A

6- A 65 old man that is undergoing a large insulin therapy to control his highly elevated glucose levels is presented with hypertension, beta blockers are not recommended as the first line therapy although not contraindicated, this is because:

A) They can lead to hypoglycemia

B) They can lead to hyperglycemia

C) They can lead to hypoglycemia & hyperglycemia

D) Beta blockers are not that effective in the treatment of hypertension

E) It can mask hypoglycemia symptoms

Answer : E

7- Which of the following is true regarding calcitonin:

A) Is a steroid hormone

B) Increases the rate of bone turnover

C) Regulates hypercalcemia

D) Increases renal reabsorption of Ca and PO₄

Answer: C

8- The major/most dangerous side effect of insulin therapy is:

- A) Hypoglycemia
- B) Hypokalemia
- C) Lipodystrophy
- D) Indurations

Answer: A

9- Dry cough is an absolute contraindication with one of the following drugs:

A) Cortisol

B) Lisinopril

C) Losartan

D) Bromocriptin

Answer: B

10- One of the following is incorrect:

A) TRH can be used to successfully treat certain types of hypothyroidism.

B) Drugs that work on the synthetic machinery of hormones tend to have more prolonged onsets of action.

C) TSH is composed of a non glycosylated alpha chain and a glycosylated beta chain.

Answer : C

11- Which of the following is wrong about cortisol:

A) Orally ineffective

B) Have anti inflammatory effect

C) Have immunosuppressive effects

D) Have anti allergy effects

E) 94% bound to albumin and 6% are free in the blood

Answer : E

12- Teriparatide is a:

- A) Peakless Insulin
- B) Recombinant IGF-1
- C) Recombinant GH
- D) Recombinant PTH

Answer : D

13- Which of the following drugs has been recently approved to treat obesity:

A) Mitiglinide

B) Tirzepatide

Answer : B

14- Which of the following drugs is used for insulin pumps:

A) Insulin glargine

B) Insulin zinc prompt

C) Insulin aspart

Answer : C

15- One of the following is correct about the treatment of hyperglycemia:

- A) Sulfonyureas are used to treat ketoacidosis
- B) Protamine decreases the absorption of insulin
- C) Insulin is orally effective

Answer : B

16- Which of the following is major limitation in the synthesis of glucocorticoids:

A) Suppression of the hypothalamic pituitary axis

B) Water and sodium retention

Answer : B

17- Which of the following best describes

Propylthiouracil's mechanism of action:

- A) Inhibits iodine uptake by thyroid cells
- B) Inhibits release of T3/4 from thyroglobulin
- C) Inhibits release of T3/4 from thyroid cells
- D) Inhibits iodination and coupling of the tyrosine residues on thyroglobulin

Answer : D

18- A drug used for treating Cushing's syndrome and is a diagnostic tool for the testing of glucocorticoids:

A) Trilostane

B) Dexamethasone

C) Metyrapone

D) Candesartan

Answer : C

19- Which one is not under the control of the hypothalamus:

A) Prolactin

B) LH

C) Growth hormone

D) Human chorionic gonadotropin

E) ACTH

Answer: D

20- Which of the following is a synthetic intermediate acting glucocorticoids:

A) Cortisone

B) Prednisolone

C) Corticosterone

D) Triamcinolone

E) dexamethasone

Answer : B+D

PBL

1- 34 yr old RFG = 500 definitive FBG = 145
the best diagnosis for Diabetes type I:

A) Anti-GAD antibody titer

B) Ketonuria

C) 10 Kg weight loss

D) Polyuria

Answer : A

2- Most reliable test to confirm diabetes:

A) Random Blood Glucose test of 185 mg/dL

B) Family history of DM2

C) Fasting blood glucose test of 122 mg/dL

D) HbA1c of 8.2%

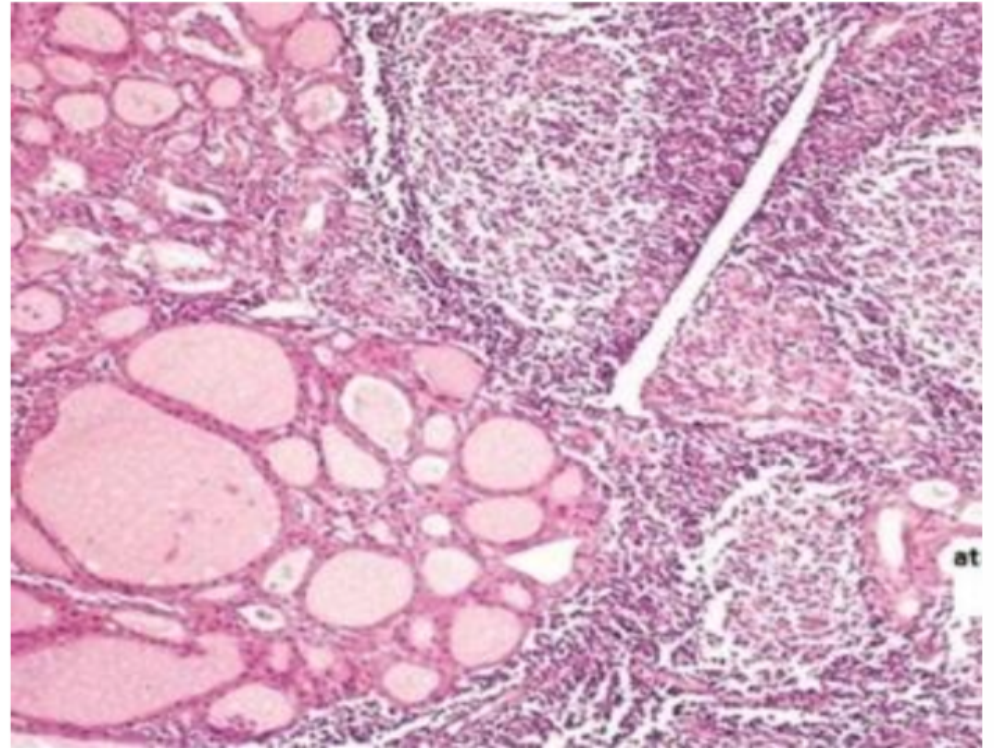
Answer : D

Practical

1- What is the disease for this histological section

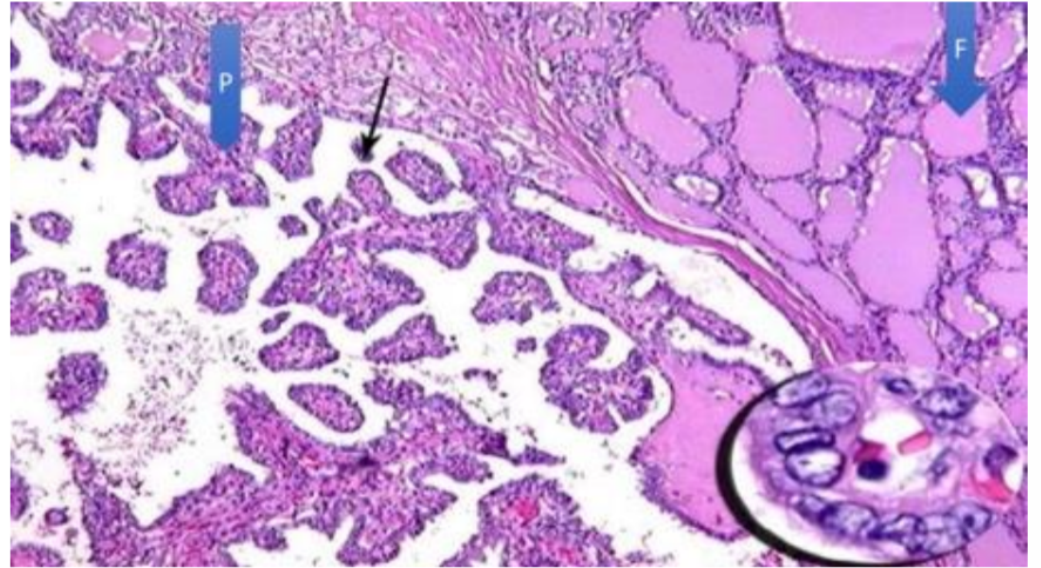
Answer :

Hashimoto thyroiditis



2- Identify the disease:

- A) Medullary carcinoma
- B) Anaplastic carcinoma
- C) Follicular carcinoma
- D) Papillary carcinoma



Answer : D

3- Identify:

A) Mixed active and inactive Follicles

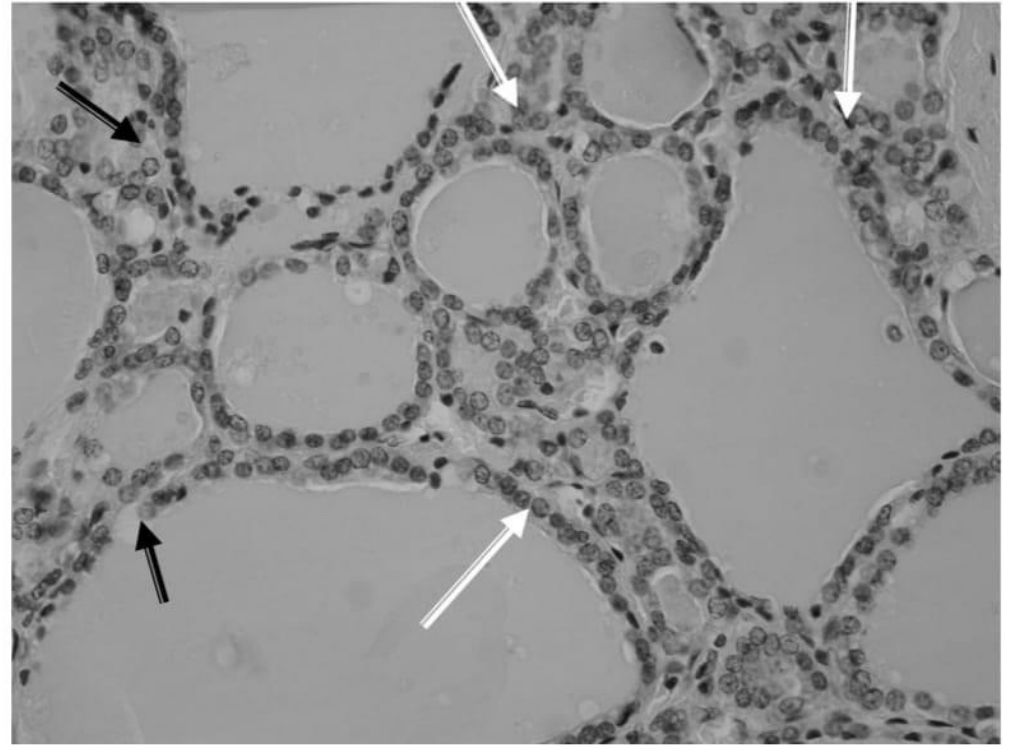
B) Active thyroid with the same follicle size

C) Inactive thyroid with the same size follicles

D) Inactive thyroid with different size follicles

E) Active thyroid with different follicle sizes

Answer : E



4-What is the hormone that is secreted from this gland:

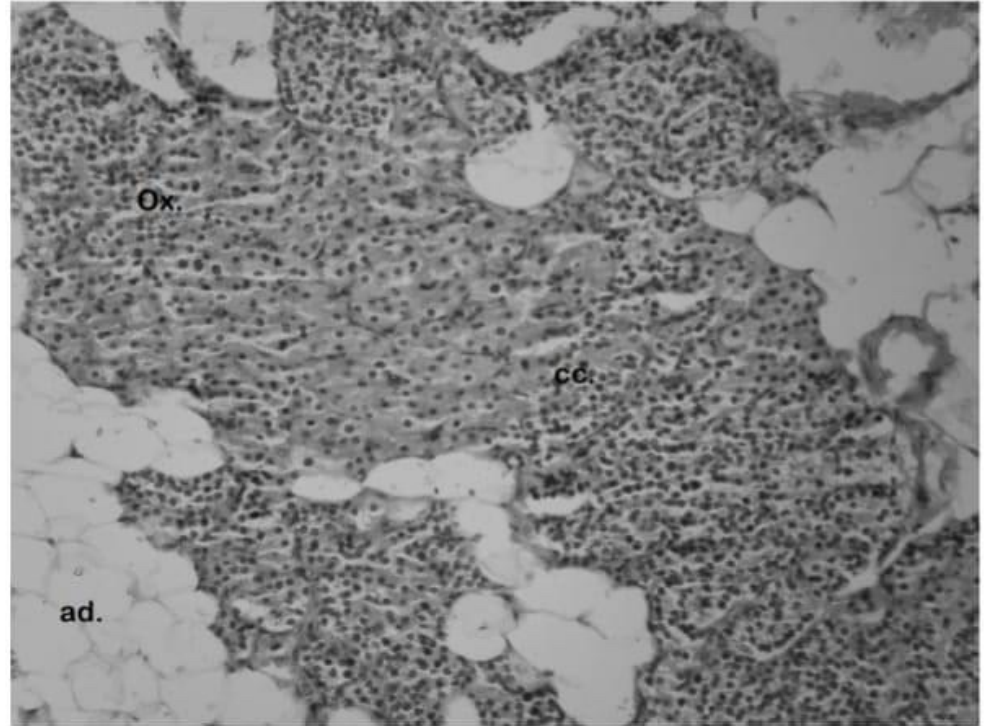
A) Calcitonin

B) Aldosterone

C) Thyroid hormones

D) Calcium

E) PTH



Answer: E

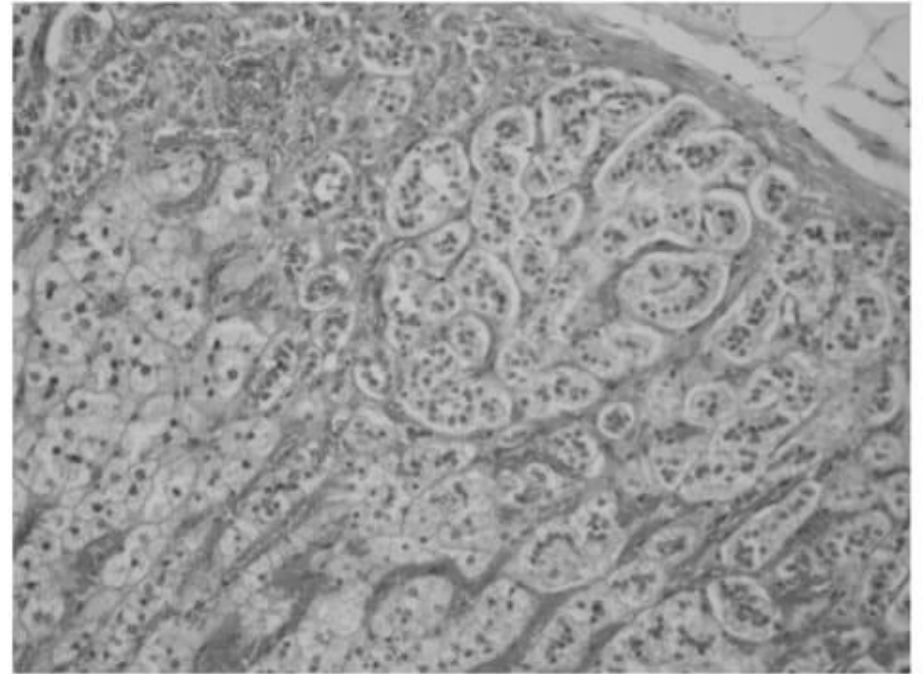
5- Identify:

A) Adrenal, zona fasciculata

B) Adrenal, medulla

C) Pituitary, pars distalis

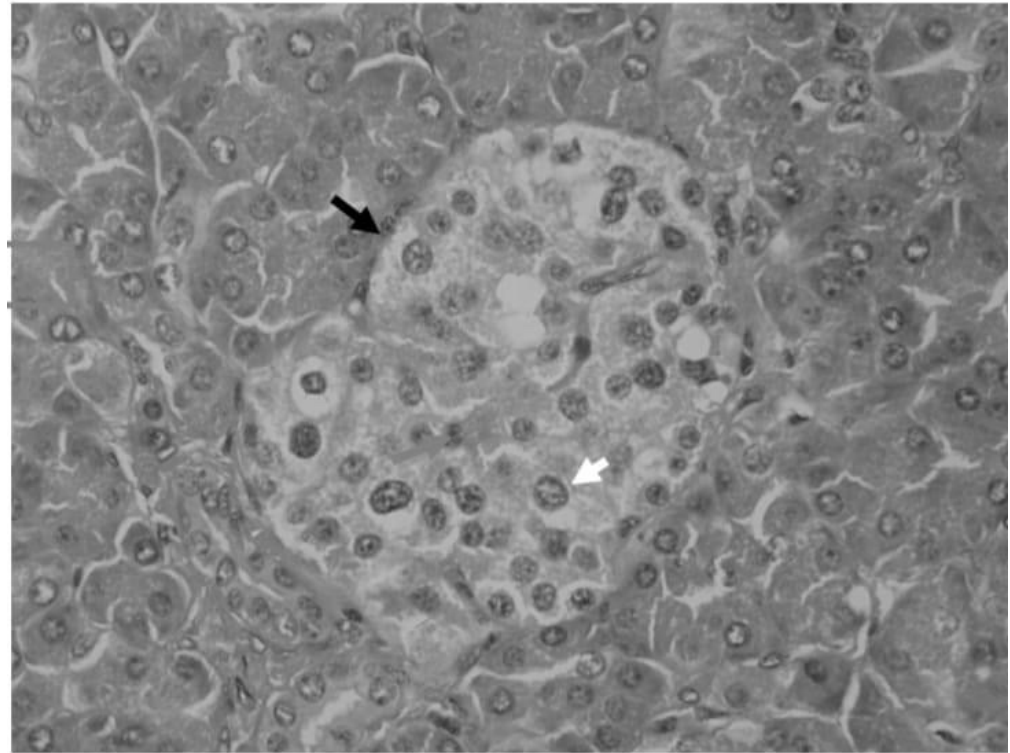
D) Adrenal, zona
glomerulosa



Answer: D

6- What is the structure that is not found in this section:

- A) Sinusoid
- B) Containing secretory granules
- C) Secretory cells
- D) Medium sized artery
- E) Reticular tissue/fibers



Answer : D

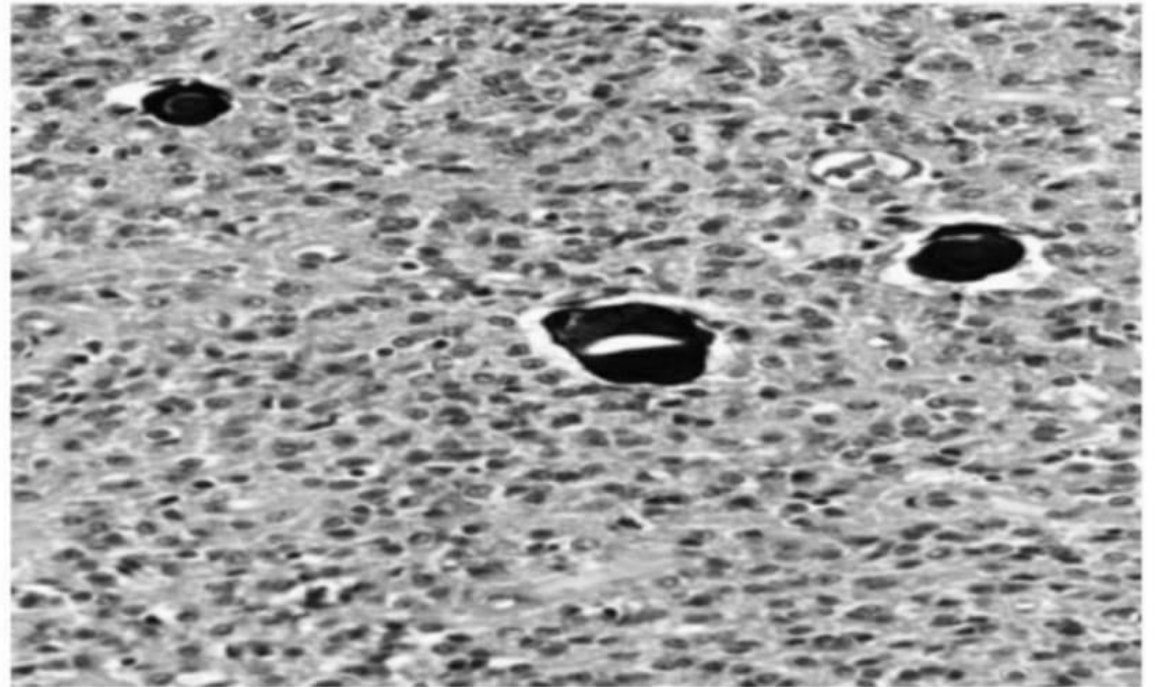
7- Identify the gland:

A) Parathyroid

B) Thyroid

C) Adrenal

D) Pineal

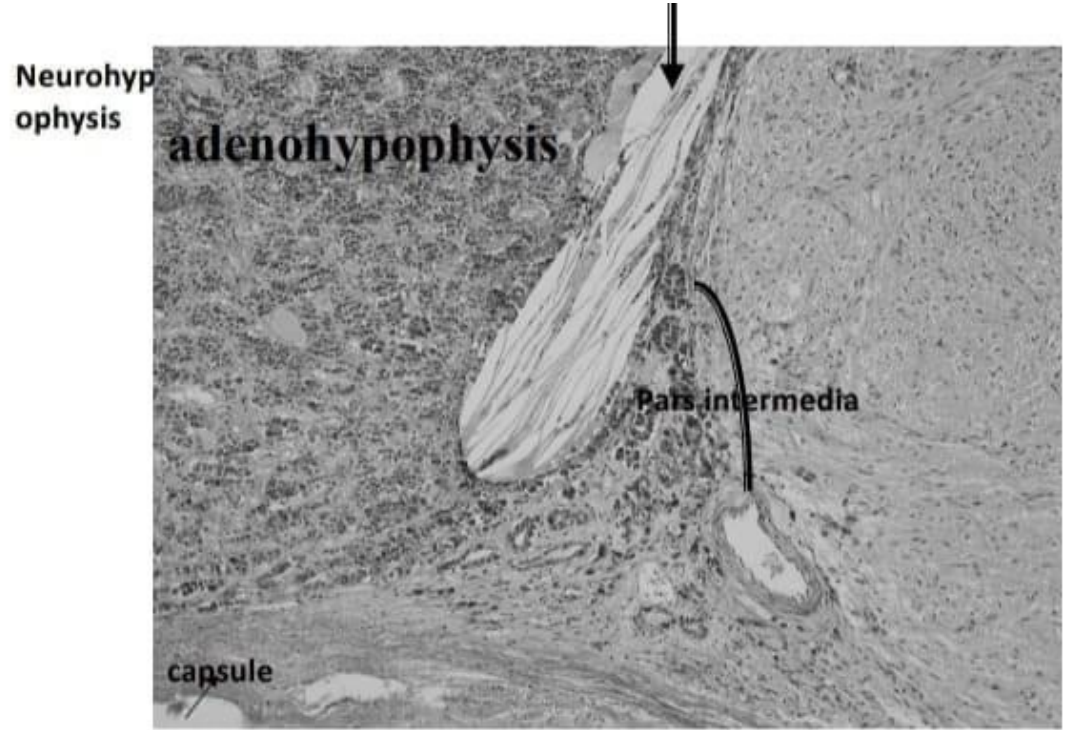


Answer : D

8- Identify:

- A) Anterior alone
- B) Posterior alone
- C) Pars intermedia
- D) Anterior + Posterior lobes

Answer : D



إِنَّ اللَّهَ وَمَلَائِكَتَهُ يُصَلُّونَ عَلَى النَّبِيِّ يَا أَيُّهَا الَّذِينَ آمَنُوا صَلُّوا عَلَيْهِ وَسَلِّمُوا تَسْلِيمًا