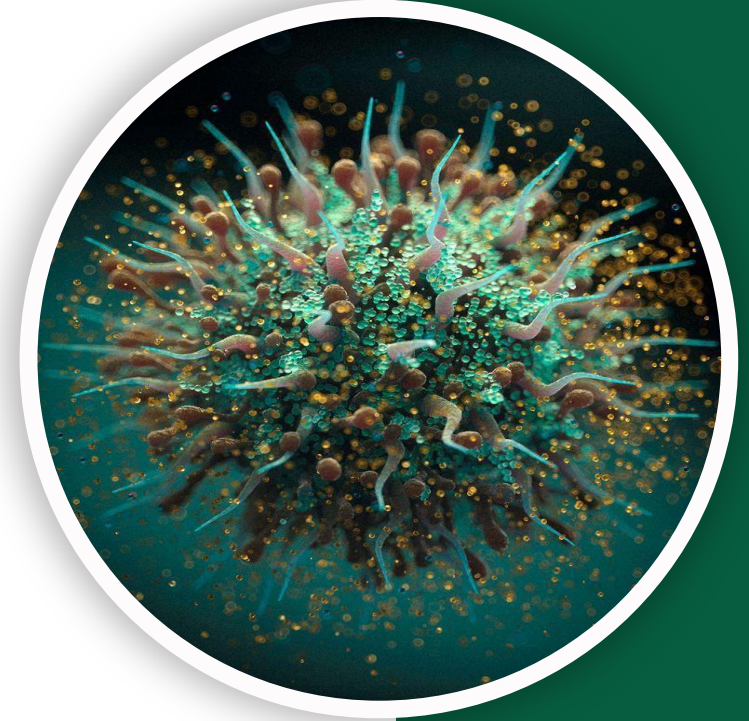


بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ
(وَفَوْقَ كُلِّ ذِي عِلْمٍ عَلِيمٌ)



Endocrine Pathology | FINAL

Past Papers



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Diseases of the Pituitary Gland

Q1 : An X ray of a 55-year-old lady showed expansion of the Sella turcica with associated bony erosions. She complained of vision problems. The MOST COMMON cause of her symptoms is:

- A. Pituitary macroadenoma, Prolactinoma type**
- B. Pituitary microadenoma, prolactinoma type**
- C. Prolactinoma that can be of any size**
- D. Non-functioning pituitary macroadenoma**
- E. Non-functioning pituitary adenoma of any size**

Q2 : A 32-year-old pregnant lady delivered by a caesarean section. She lost 2 litres of blood during the operation and her systolic blood pressure dropped significantly. She developed hypothyroidism and adrenal insufficiency. Which of the following statements is CORRECT about her disease?

- A. An X ray would show expansion of Sella turcica
- B. Her symptoms are caused by ischemic necrosis of 50% of the anterior pituitary
- C. The presence of a pre-existing large non-functioning pituitary adenoma makes her more vulnerable to develop hypopituitarism
- D. Her symptoms are caused by haemorrhage within the anterior pituitary
- E. Her symptoms could've been better if bleeding of the same amount and duration occurred during pregnancy rather than during delivery

Answer: C

Q3 : All the following endocrine neoplasms are matched correctly with the histological features that help in their recognition EXCEPT:

- A. Parathyroid adenoma and absence of fat
- B. Malignant Pheochromocytoma and metastatic spread
- C. Pituitary adenomas and polymorphic cellular appearance
- D. Papillary thyroid carcinoma and psammoma bodies
- E. Medullary thyroid carcinoma and amyloid deposition

Q4 : Wrong about the pituitary gland:

- A. Injury to the hypothalamo-hypophyseal tract can result in diabetes insipidus**
- B. The posterior pituitary contains brain sand (corpora arenacea) commonly seen on imaging**
- C. The anterior pituitary arises embryologically from Rathke's pouch**
- D. The posterior pituitary stores and releases oxytocin and vasopressin**

Q5 : 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 traum**

Q6 : One of the following can be used to distinguish between pituitary carcinomas and adenomas:

- A. Hyperchromatic nucleus**
- B. Increased mitotic activity**
- C. Distant Metastasis**

Q7 : 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. Occurring in the postpartum period**
- E. Ischemic injury of the anterior pituitary**

Diseases of the Thyroid Gland

Q1: A 47-year-old woman complained of disfiguring enlargement of the neck. On examination you felt several variably-sized nodules of the thyroid gland, some of which felt cystic. Which of the following is CORRECT regarding her disease?

- A) The largest nodule is more likely to be a functional nodule**
- B) Graves disease is the most likely diagnosis**
- C) If iodine scans show increased iodine uptake, then a pituitary TSH adenoma would be the most common cause**
- D) Iodine deficiency is a common cause of her illness**
- E) Malignant transformation is a common complication of her disease**

Q2 :A 45-year-old woman presented with heat intolerance, diarrhea and tremors. Iodine scans showed a single hot nodule. This patient can have which of the following signs?

- A)Wide staring gaze**
- B)Thick scaly skin patches**
- C)Exophthalmos**
- D)Coarse facial features**
- E)Wide staring gaze with associated exophthalmos**

Answer: A
Toxic adenoma

Q3 :Choose the INCORRECT statement regarding Hashimoto thyroiditis:

- A) Is the most common cause of hypothyroidism in the developed countries**
- B) There is increased risk of developing a lymphoma**
- C) Follicular destruction early in the disease can result in hyperthyroidism**
- D) Apoptosis of follicular cells is induced by B lymphocytes**
- E) It has a genetic predisposition**

Q4 : Hurthle cells are:

- A) large cells with eosinophilic nuclear inclusions
- B) Seen only in Hashimoto thyroiditis
- C) An indicator of poor prognosis if seen in a thyroid adenoma
- D) Capable of generating more ATP than normal follicular cells
- E) Morphologically similar cells are present in parathyroid adenomas but not in normal parathyroid glands

Q5: A 30-year-old man was treated for an upper respiratory tract infection, after which he developed painful enlargement of the thyroid gland. Serologic examination didn't show any autoantibodies. Which of the following information is CORRECT about his illness?

- A) Thyroid function can return to normal within 8 weeks**
- B) Characterised histologically by lymphocytic infiltrate with associated Hurthle cells**
- C) Granulomas are a common histologic feature and are caused by macrophages trying to phagocytose viral particles**
- D) If untreated, there is a risk to develop a lymphoma**
- E) Blood tests will reveal low white blood cell counts**

Answer: A

Q6 : Which of the following thyroid diseases CANNOT be diagnosed by Fine needle aspiration (FNA)?

- A) Papillary thyroid carcinoma**
- B) Hashimoto thyroiditis**
- C) Follicular carcinoma**
- D) Thyroid cyst**
- E) All diseases can be diagnosed by FNA**

Answer: C

FNA cannot assess capsular or vascular invasion required for diagnosis of follicular carcinoma

Q7 : Which of the following situations best describes Graves disease?

- A) A 44-year-old lady with diffuse bilateral thyroid enlargement, and high TSH**
- B) A thyroid gland received in the lab showing cystic degeneration and colloid nodules**
- C) A histology report describing diffusely enlarged gland with enlarged follicles lined by tall columnar epithelial cells**
- D) A 66-year-old male with unilateral exophthalmos and diffusely enlarged thyroid gland**
- E) A patient with diffuse, symmetric enlargement of the thyroid gland that showed decreased iodine uptake**

Answer: C

Q8 : All the following endocrine neoplasms are matched correctly with the histological features that help in their recognition EXCEPT:

- A) Parathyroid adenoma and absence of fat**
- B) Malignant Pheochromocytoma and metastatic spread**
- C) Pituitary adenomas and polymorphic cellular appearance**
- D) Papillary thyroid carcinoma and psammoma bodies**
- E) Medullary thyroid carcinoma and amyloid deposition**

Answer: C

Q9 : A 40-year-old male with a single thyroid nodule which, on histological examination, showed nuclear clearing, grooves and inclusions is more likely to have which of the following mutations?

- A) Overstimulation of PIK3CA**
- B) Loss-of-function mutations of PTEN**
- C) (2;3) translocation**
- D) Formation of a fusion gene involving PAX8**
- E) RET gene rearrangement**

Answer: E

Q10 : All the following combinations regarding thyroid tumors are correct EXCEPT:

- A) Anaplastic carcinoma and TP53 mutation**
- B) Medullary carcinoma and calcitonin production**
- C) Follicular carcinoma and iodine deficiency**
- D) Anaplastic carcinoma and poor prognosis**
- E) Papillary carcinoma and early hematogenous spread**

Answer: E
papillary carcinoma spreads
lymphatically, not hematogenously

Q11 : 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**

Q12 : 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

Q13 : 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

Q14 : 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

Q15 : 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

Q14 : Anaplastic cancer is normally associated with which mutation:

- A) ERT**
- B) (2,3) translocation**
- C) TP53**
- D) RET**
- E) BRAF**

Answer : C

Q15 : 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

Q16 : Which of the following is NOT considered a cause of thyrotoxicosis?

- A) Graves' disease**
- B) Toxic multinodular goiter**
- C) Subacute granulomatous thyroiditis**
- D) Hashimoto thyroiditis**

Answer : D

Q17 : Which of the following is TRUE about subacute lymphocytic thyroiditis?

- A) It shows granulomatous inflammation with giant cells**
- B) It is associated with pain and fever**
- C) It shows elevated serum leukocytes**
- D) It is due to iodine deficiency**
- E) It is always associated with thyroid carcinoma**

Answer : C

Q18 : Which of the following is TRUE about subacute granulomatous (De Quervain) thyroiditis?

- A) Low serum WBCs**
- B) Associated with autoantibodies**
- C) Presents with painless thyroid enlargement**
- D) Often mistaken for lymphoma**
- E) High WBCs in serum are commonly seen**

Answer : E

Q19 : Which of the following is **INCORRECT** about Graves disease?

- A) Presence of thyroid-stimulating immunoglobulins (TSIs)
- B) Associated with diffuse goiter
- C) Common in young females
- D) Causes infiltrative dermopathy (edema in shins)
- E) Causes hypothyroidism

Answer : E

Q20 : Which of the following is TRUE about papillary thyroid carcinoma?

- A. Always has poor prognosis when lymph nodes are involved**
- B. Typically spreads hematogenously**
- C. Psammoma bodies are rare**
- D. Metastasis to a single lymph node does not imply poor prognosis**
- E. Commonly seen in iodine-deficient regions**

Answer : D

Q21 : A child presents with a protruding tongue, coarse facial features, and developmental delay. What is the most likely diagnosis?

- A. Acromegaly**
- B. Graves disease**
- C. Cretinism**
- D. Rickets**

Answer : C

Past 23 **Q22: Which of the following is incorrect about medullary thyroid carcinoma?**

- A- familial cases are associated with RET mutation**
- B- sporadic cases are associated with RET mutation**
- C- calcitonin can be used as diagnostic**
- D- derived from follicular cells**

Answer: D

Past 23 Q23: A female patient presents with cold intolerance, bradycardia Which is a potential cause?

- A. Hashimoto thyroiditis**
- B. Graves disease**
- C. Pheochromocytoma**
- D. Cushing syndrome**

Answer: A

Past 23 **Q24: Correct about Papillary thyroid carcinoma ?**

A-radiation is the most underlying cause

B-metastasis to liver is common

C-worse prognosis than follicular

Diseases of the Parathyroid Gland

Q1: Which of the following is NOT a feature of primary hyperparathyroidism:

- A) Hypocalcemia**
- B) Renal stones**
- C) Osteitis fibrosa cystica**
- D) Increased risk of peptic ulcers**
- E) Metastatic calcification**

Answer: A

Q2: Which of the following is NOT correct?

- A) 3 parathyroid glands usually are normal and one is affected if there is an adenoma.**
- B) Atypia only occurs in a malignant tumor.**
- C) Hyperplasia typically involves all 4 glands.**
- D) Parathyroid carcinoma is very rare and often difficult to distinguish.**
- E) Secondary hyperparathyroidism is most commonly due to chronic renal failure.**

Answer: B

Q3: Which of the following is incorrect regarding parathyroid adenomas:

- A) Encapsulated
- B) Causes hyperparathyroidism
- C) Rich in adipose tissue
- D) Usually involve only one parathyroid gland
- E) A rim of normal parathyroid may be seen

Answer: C

Q4: The most common cause of secondary hyperparathyroidism:

- A) Parathyroid carcinoma**
- B) Chronic renal failure**
- C) Pituitary adenoma**
- D) Malabsorption Syndrome**
- E) Chronic liver disease**

Answer: B

Q5: 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

Past 23

Q6: Which of the following is not a complication of hyperparathyroidism?

A-kidney stones

B-gall stones

C-brown tumor in the jaw

D-osteitis cystica

E-hypotension

Answer: E

Past 23

Q7: Incorrect in parathyroid adenoma?

A-more than one gland usually

B-lack fat

C. Usually composed predominantly of chief cells

D. May show a rim of compressed normal parathyroid tissue

Diseases of the Adrenal Gland

Q1: in which of the following causes of Cushing syndrome the adrenal glands are expected to be atrophic?

- A. Iatrogenic Cushing syndrome**
- B. Cushing disease**
- C. ACTH producing pituitary adenoma**
- D. Cushing syndrome occurring as a paraneoplastic syndrome in patients with lung small cell carcinoma**
- E. Nodular adrenal hyperplasia**

Answer: A

Q2: All of the following are features of Addison disease EXCEPT:

- A. Hyperpigmentation**
- B. Hyperkalemia**
- C. Hyponatremia**
- D. Hypertension**
- E. Decreased aldosterone levels**

Answer: D

Q3: Which of the following is not a cause of hyperaldosteronism:

- A. Renal artery stenosis**
- B. Hypovolemia**
- C. Pregnancy**
- D. Pituitary adenoma**

Answer: D

Q4: Most common cause of endogenous Cushing's syndrome:

- A. Primary adrenal hyperplasia**
- B. CRH producing tumor**
- C. Corticotroph cell adenoma**
- D. Adrenal cortical carcinoma**
- E. Ectopic ACTH-producing tumor**

Answer: C

Q5: 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 face**

Answer: C

Q6: 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

Q7: 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

Past 23 **Q8 : Conn syndrome :**

Ans: hyperaldosteronism

Past 23 **Q9 : Most common cause of Addison disease:**

Ans: Autoimmune adrenalitis

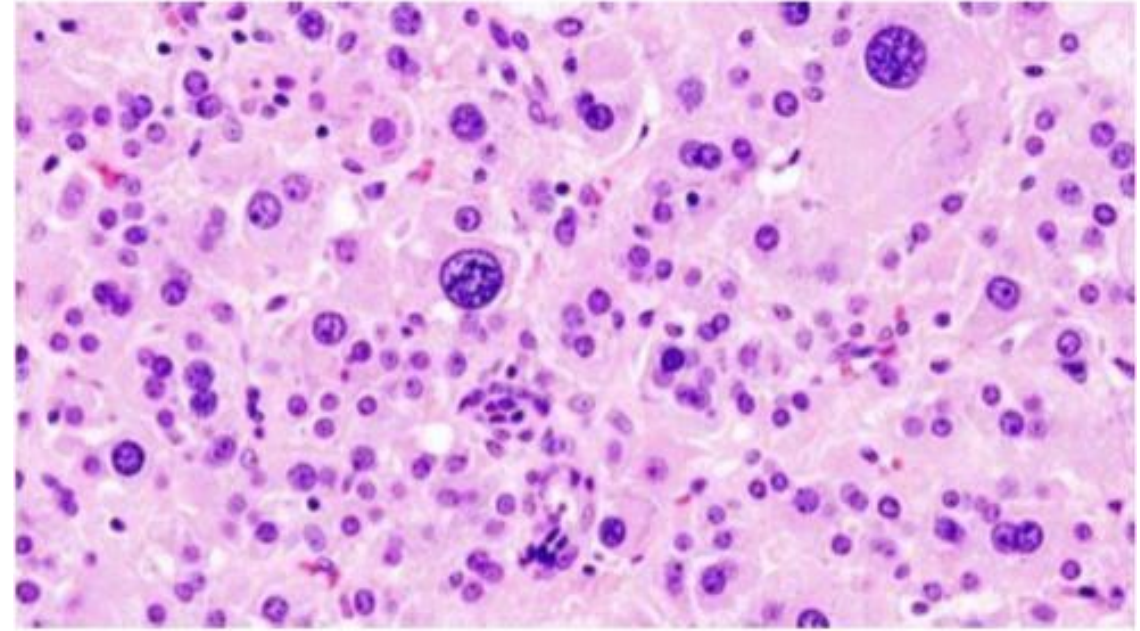
Past 23 **Q10 : Incorrect about pheochromocytoma:**

- A. Can cause sudden death
- B. Almost always is sporadic
- C. A cause of treatable hypertension

Pathology Lab

Q1: Choose the wrong answer about this section taken from adrenal gland:

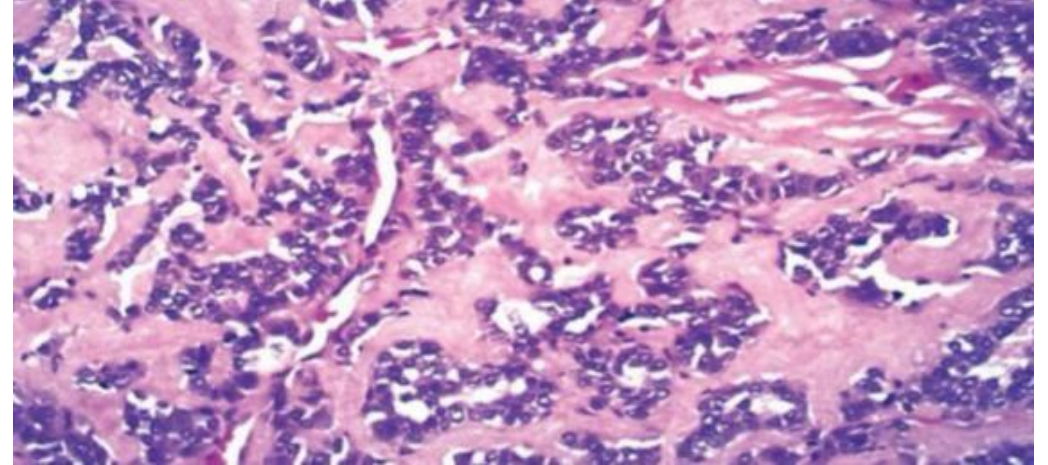
- A) Usually solitary
- B) The gland could be 30g in weight
- C) The functional status can't be predicted from histology
- D) Spironolactone bodies is due to surgery not medications



Answer: D

Q2 :The following picture represent ...

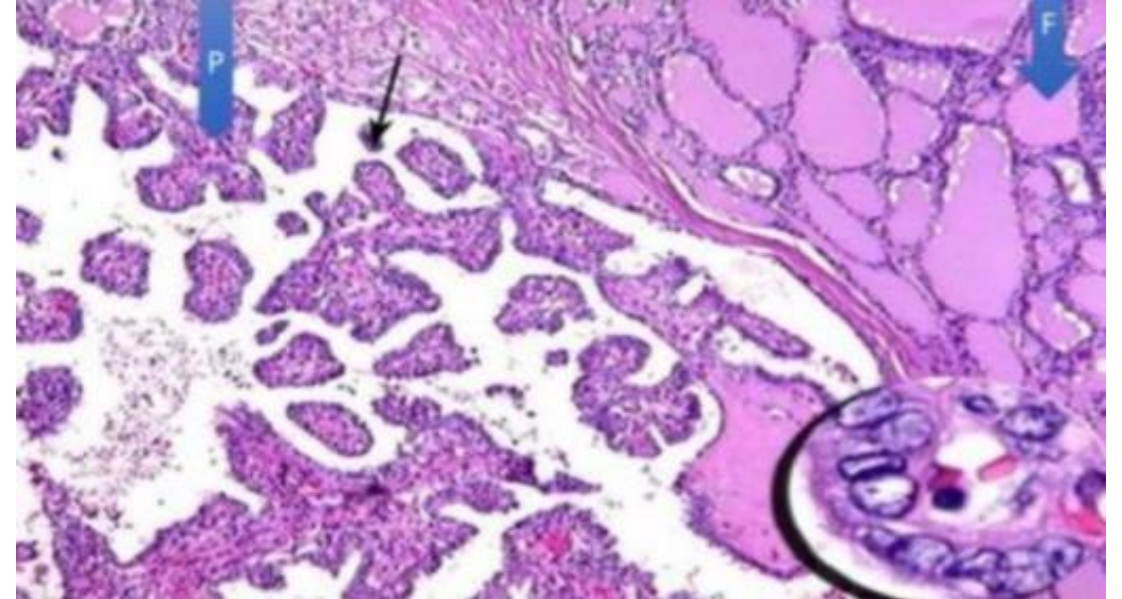
- A) papillary carcinoma**
- B) follicular carcinoma**
- C) Anaplastic carcinoma**
- D) medullary carcinoma**



Answer: D

Q3 : identify the disease :

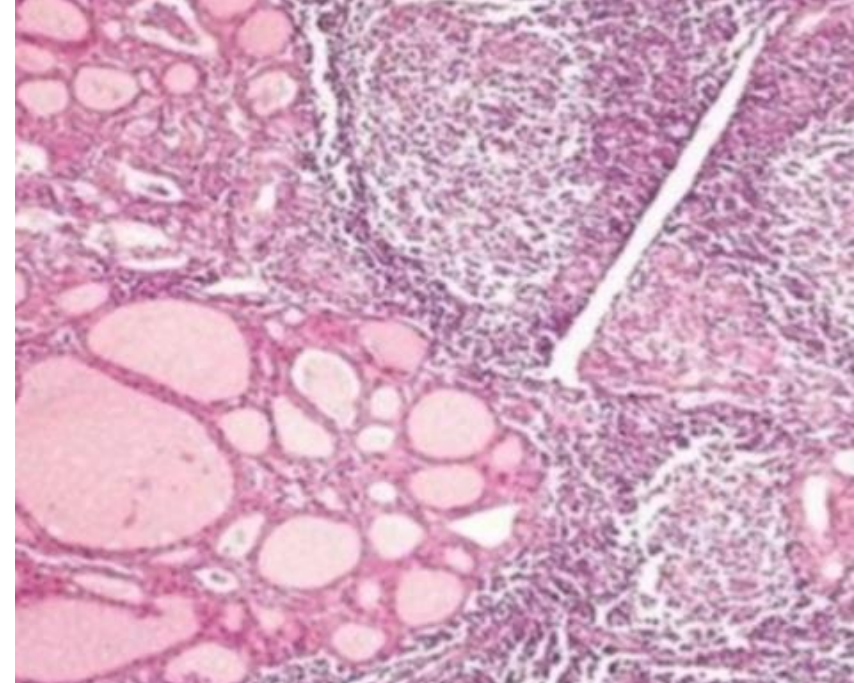
- A) papillary carcinoma
- B) follicular carcinoma
- C) Anaplastic carcinoma
- D) medullary carcinoma



Answer: A

Q4 : identify the disease :

- A) Hashimoto thyroiditis
- B) Papillary thyroid carcinoma
- C) Subacute granulomatous thyroiditis
- D) Graves disease
- E) Follicular adenoma



Answer: A

رسالة من الفريق العلمي:

في ختام عامنا الثاني،
ثَمَّةَ أَشْيَاءَ لَا تُدْرِكُ ثِقَلَهَا إِلَّا بَعْدَ أَنْ تَمْضِيَ. لَيَالٍ حَسِبْنَاهَا أَطُولَ مِنْ أَنْ
تَنْتَهِيَ، وَأَيَّامٌ ظَنَنَّا أَنْ لَا سَبِيلَ إِلَى تَجَاوُزِهَا، ثُمَّ مَضَتْ كُلُّهَا، وَاحِدَةً تَلَوْ
الْأُخْرَى.

لَمْ يَكُنِ الْعُبُورُ هَيِّنًا، لَكِنَّ اللَّهَ كَانَ أَكْرَمَ مِنْ أَنْ يُكَلِّفَنَا طَرِيقًا ثُمَّ يَتْرُكَنَا فِيهِ.
فَمَضَيْنَا بِمَا أَوْتَيْنَا مِنْ صَبْرٍ، وَبِمَا لَمْ نَكُنْ نَعْلَمُ أَنَّنا نَمْلِكُهُ أَصْلًا.

وَلَعَلَّ هَذَا مَا يَبْقَى مِنْ عَامٍ كَهَذَا: أَنَّ الْإِنْسَانَ لَا يَعْرِفُ سَعَةَ قُدْرَتِهِ إِلَّا حِينَ
تَضِيقُ بِهِ السُّبُلُ، ثُمَّ يَجِدُ نَفْسَهُ، فِي آخِرِ الْأَمْرِ، قَدْ بَلَغَ.

الْحَمْدُ لِلَّهِ.



For any feedback, scan the code or click on it.



Corrections from previous versions:

Versions	Slide # and Place of Error	Before Correction	After Correction
V0 → V1			
V1 → V2			