FINAL ENDOCRINE 2019

DR2017

PATHO (Dr HEYAM) - حرفيا كما وردت–

1) 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.

2) 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? The question describes Sheehan syndrome

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

3) A 66-year-old patient complained of polyuria and polydipsia. His fasting blood sugar was 70 mg/dl in three occasions. A blood test of this patient will show:

A- hypernatremia
B- hyponatremia
C- hypercalcemia
D- hypocalcaemia
E- normal calcium and sodium levels.

4) 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.

5) A 45-year-old woman presented with heat intolerance, diarrhoea 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

6) 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

7) 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

8) 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.

9) 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

10) 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. Exophthalmos in Graves is bilateral.
E- A patient with diffuse, symmetric enlargement of the thyroid gland that showed decreased iodine uptake

11) 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.

12) 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.

13) All of 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.

14) 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 calcifications.

15) Choose the INCORRECT statement regarding MEN 1 syndrome

A- Inherited in an autosomal dominant fashion
B- Pancreatic tumors occurring in MEN1 syndrome are aggressive and multiple
C- Hyperparathyroidism is a rare manifestation
D- Patients might have prolactinomas
E- Pituitary adenomas occurring in MEN1 occur at a younger age compared to their sporadic counterparts

16) 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 a patient with lung small cell carcinoma..
E- Nodular adrenal hyperplasia.

17) All of the following are features of Addison disease EXCEPT:

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

18) One of the following is INCORRECT regarding differences between type 1 and type 2 Diabetes Mellitus (DM)

A- In type 1 DM there is absolute insulin deficiency whereas in type 2 DM insulin levels can be normal.
B- In type 1 there is autoimmune destruction of the Islets of Langerhans, whereas in type 2 there is dysfunction of the pancreatic Islets.
C- Insulin resistant is a feature of type 2 DM resulting in decreased glucose uptake by muscle and brain tissues
D- Free fatty acids play a major role in the pathogenesis of type 2 DM.
E- Type 1 occurs at a younger age group than type 2 DM.

19) The leading cause of death in diabetics is related to which of the following complications?

A- microangiopathy.
B- Femoral artery atherosclerosis.
C- Diabetic nephropathy
D- Hyaline arteriolosclerosis.
E- Coronary artery atherosclerosis

1	2	3	4	5	6	7	8	9
D	C	A	D	A	D	D	A	C

10	11	12	13	14	15	16	17	18	19
C	C	E	E	A	C	A	D	C	E

1:- deleted question by **difficulty index**, many chose A as the right answer

PHARMA (Dr MALIK ZUHLOF)

1) Which drug needs 4-6 months to reach steady state

A- liothyronine **B- Methimazole**

C- Iodides **D- levothyroxine**

E- radioactive iodine (NA-I)

2) which is the following is used in thyroid storm

A- PTU **B- Methimazole**

C- Iodides **D- ipodate**

E- radioactive iodine

3) which of the following is used in severe hypothyroidism and has stage of myxedema with coma

A- Iohexol **B- levothyroxine** **C- liothyronine**

4) After radioactive iodine treatment, which of the following is used

A- PTU **B- Methimazole**

C- Levothyroxine **D- liothyronine**

5) we use PTU in pregnancy because of ?

A- Less half-life **B- free molecules can't cross the placenta**

C- higher affinity to binding proteins

6) Drug associated with thrombosis

A-strontium ranelate **B- bisphosphonates**

C- plicamycin **D- denosumab**

7) which of the following drugs causes hypoglycemia

A- somatotropin **B- mecasermin**

C- octerotides **D- pegvisomant**

8) which of the following drugs leads to psychosis

A- mecasermin **B- octerotides**

C- pegvisomant **D- Cabergoline**

9) which of the following causes protein breakdown and muscle wasting

A- pigvisomant **B- denosumab**

C-dexameathasone **D- metformin**

10) Which of the following doesn't protect from spine and hip fractures

A- bisphosphonates **B- Raloxifene** **C- Strontium Ranelate**

11) which of the following protect cancer metastasis to bones

A- bisphosphonates **B- denosumab**

C- strontium Ranelate **D- calcitonin**

12) a person with GH deficiency and has antibodies for GH, the appropriate drug

A- somatotropin **B- Mecasermin** **C- octeriotide**

13) which of the following prevents thyroid hormone synthesis and prevents peripheral conversion of T4 to T3 and needs 4 weeks of action

A- PTU **B-Methimazole**

C- iodides **D- Radioactive iodine**

14) which is used in TYPE 1 DM with the least injections

A- Ultra short with long acting insulin **B- Short with intermediate acting insulin**

C- short with long acting insulin

15) Which of the following diabetic drugs causes hypoglycemia

A- lispro **B- Aspart**

C- isophane (NPH) **D- glargine**

16) what is the Difference between sulfonylureas and meglitinides

A- one of them doesn't cause hypoglycemia

B- Meglitinides causes release of in insulin in lesser amounts

C- Meglitinides are more efficient

D- Meglitinides cause less hypoglycemia

E- Sulfonylureas cause less hypoglycemia and less efficient

17) Which of the following diabetic drug approved by FDA to cause weight loss

-اللي بحفظ بس نهاية اسم الدوا بلع السؤال-

A- sitagliptin **B-Pramlintide**

C- saxagliptin **D- Dulaglutide**

18)major side effect of glitazone

A- Edema **B- Diarrhea**

C- weight loss **D- weight gain**

19) which of the following reduces glucose by working on AMP pathway

A- Glitazone **B- metformin** **C- acarbase**

20) the drug that increases liver and tissue sensitivity, with many bad side effect (sth like that ☹)

Pioglitazone (GLITAZONE family)

1	2	3	4	5	6	7	8	9	10
☹	A	C	C	C	A	B	D	C	B

11	12	13	14	15	16	17	18	19	20
B	B	A	B	C	D	D	☺	B	☹

1- DELETED QUESTION :- it should be weeks not months, the answer is levothyroxie

18- DELETED QUESTION:- B+D are both right

1 missed question ☹

ANATOMY+HISTOLOGY (Dr AMJAD SHATARAT)

1) wrong about zona fasiculata

A- the thickest layer

B- cells contain lipid droplets

C- cells arranged in circles

D- cells may be binucleated

2)Wrong about pituitary

A- hypothalamohypopheseal tract injury lead to adh deficiency

B- posterior pituitary contain brain sands

3) wrong statement

A- Glumerulosa layer affects medulla secretion

B- there is connection between cortex and medulla

4) INTERIOR relation with right suprarenal gland

A- left lobe of the liver

B- IVC

C- stomach

D- diaphragm

5-Upperlimit of thyroid gland

Pretracheal fascia

6- Acidophils cells of the pituitary secretes ?

A- GH

B- TSH

C- ACTH

7- Wrong statement:

- Inferior parathyroid originate from dorsal wing of 4th pouch

8-Easy question about the wrong statement regarding blood supply of pituitary

Other 2 easy questions

ANATOMY part was very very easy

1	2	3	4	5	6	7
C	B	A	B	☺	A	☺

Lab (2 Patho+8 Anatomy)

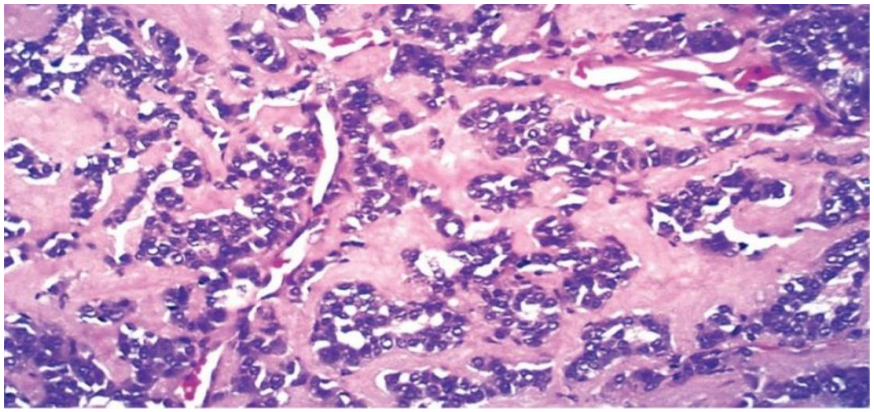
1) the following picture represent

A- papillary carcinoma

B- follicular carcinoma

C- Anaplastic carcinoma

D- medullary carcinoma



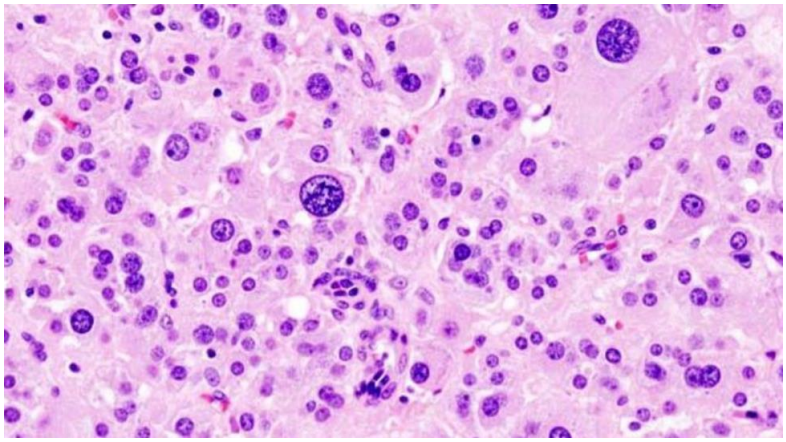
2- choose the wrong answer about this section taken from adrenal gland

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



3- the green arrow represents?

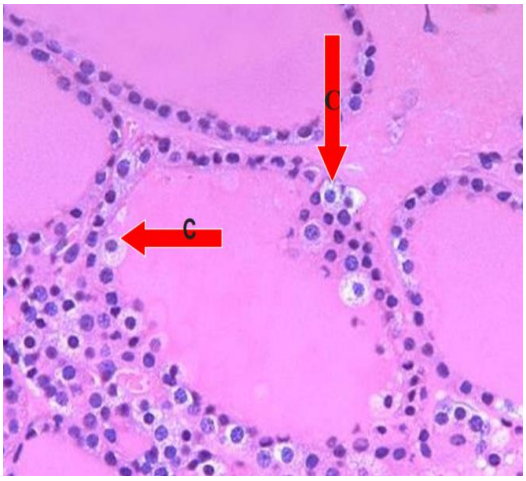
A- Oxyphill cells

B- parafollicular cells

C- follicular cells

D- chief cells

4- Wrong about the represented cells

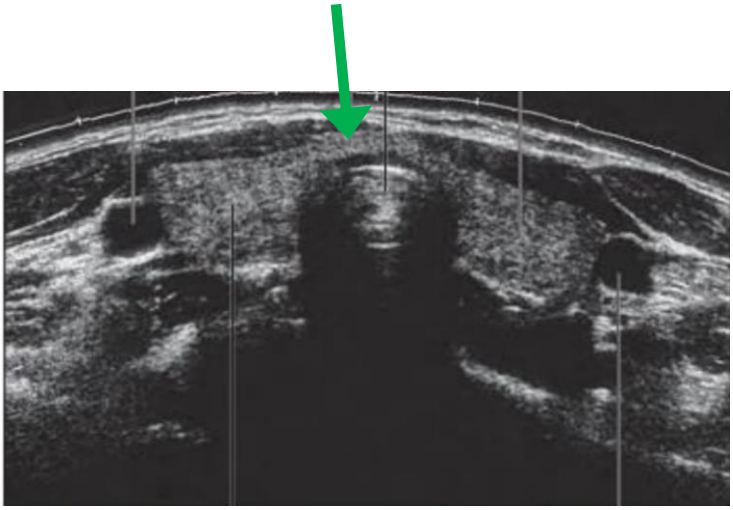


A- produce calcitonin

B- Can occur singly

C- originates from ectoderm

5- Name the structure



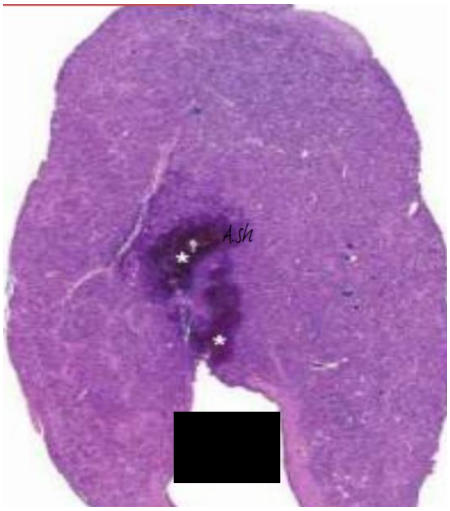
A- right lobe

B- column vertebrae

C- Isthmus of thyroid

D- Trachea

6- Wrong about this structure



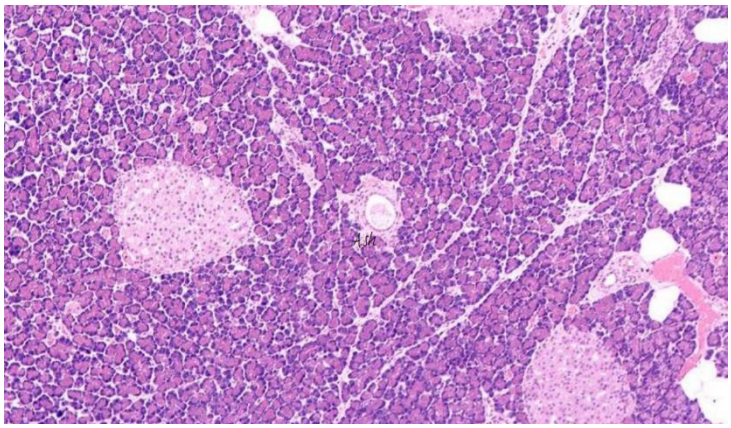
A- regulates day/ night cycle by retinohypothalamic tract

B- pituicytes are the most common cells

C- it has brain sands

D- contain glial cells

7- wrong about the following structure



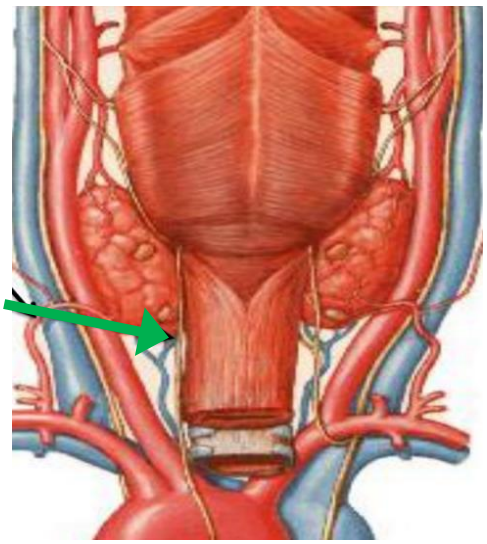
A- regulates glucose level in the body

B- Immunohistochemistry is the only accurate method to differentiate between different cells

C- mesodermal in origin

D- Variable in size and number of cells in different people

8- the pointed nerve is



A- external laryngeal

B- recurrent laryngeal

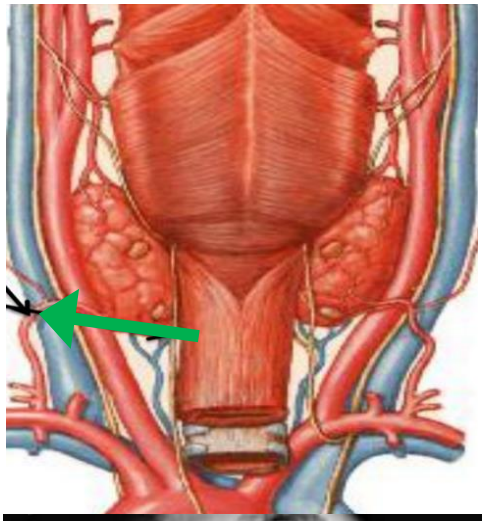
C- vagus nerve

9- wrong about pointed artery

A- It then turns medially and downward to reach the posterior border of the gland

B- branch from external carotid artery

C- related to recurrent laryngeal nerve



10- true about this picture

A- branchial fistula

B- thyroglossal fistula

C- happens when 3rd pharyngeal arch fails to grow

1	2	3	4	5	6	7	8	9	10
D	D	C	C	C	B	C	B	B	A