

Anatomy endocrine

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*Thanks for Mohammed rababah, suhila Bashir, Rama
harb & islam alqaisi for revision the answers* 

- *The suprarenal glands, choose the wrong statement:*
- *A. The left suprarenal gland does not reach the hilum of the left kidney*
- *B. The diaphragm lies posterior to both suprarenal glands*
- *C. Found at the level of the 11th rib*
- *D. The inferior vena cava lies anteriomedially to the right suprarenal gland*
- *E. They are located retroperitoneally at the upper poles of the kidneys*

- *Answer: A*

- *The thyroid gland will move upward when the patient is asked to swallow because:*
- *A. The thyroid gland and the larynx are covered by the prevertebral fascia*
- *B. The thyroid gland and tongue are attached to each other by the thyroglossal duct*
- *C. The thyroid gland and the larynx are covered by the superficial fascia of the neck*
- *D. The thyroid gland and the larynx are covered by the carotid sheath*
- *E. The thyroid gland and the larynx are covered by the pretracheal fascia*

- *Answer: E*

- *The blood supply of the suprarenal glands, choose the wrong statement:*
- *A. The inferior suprarenal artery is a branch from the renal artery*
- *B. The arterial and venous capillaries within the adrenal gland enable it to convert norepinephrine to epinephrine*
- *C. The right and left suprarenal glands drain directly into the inferior vena cava*
- *D. The medulla has a dual blood supply*
- *E. The suprarenal gland receives the highest blood supply in the body*

- *Answer: C*

- *The development of the suprarenal gland, choose the wrong statement:*
- *A. Its medulla originates from ectodermal origin (neural crest cells)*
- *B. All chromaffin cells migrate and invade the medulla of the suprarenal gland*
- *C. Its cortical cells originate from mesodermal mesenchyme*
- *D. The basophilic mesothelial cells will form the future glomerular and fascicular zones of the definitive cortex*
- *E. The largest cluster of chromaffin cells outside the adrenal medulla is referred to as the organ of Zuckerkandl*

- *Answer: B*

- *Choose the wrong statement about Zona Fasciculata:*
- *A. Its cells are typical steroid synthesizing cells*
- *B. Its cells are arranged in circles*
- *C. Its cells cytoplasm contains lipid droplets*
- *D. Its cells secrete glucocorticoids, mainly cortisol*
- *E. It is the thickest middle zone that forms around 80% of the cortex*

- *Answer: B*

- *Parathyroid gland, choose the wrong statement:*
- *A. The superior parathyroid glands are usually dorsal to the nerve that accompanies the superior thyroid artery*
- *B. The dorsal wing of the third pharyngeal pouch differentiates into inferior parathyroid gland*
- *C. The inferior parathyroid glands located ventral to the recurrent laryngeal nerve*
- *D. The ventral wing of the fourth pharyngeal pouch differentiates into superior parathyroid gland*
- *E. The inferior parathyroid glands occasionally migrate to the level of the aortic arch*

- *Answer: D (this question written by dr. Amjad , correct answer is dorsal wing of fourth pharyngeal pouch, don't worry)*

- *Which of the following is located posterior to both right and left suprarenal glands:*
- *A. Bile duct*
- *B. The 9th rib*
- *C. Portal vein*
- *D. The inferior vena*
- *E. The diaphragm*

- *Answer: E*

- *Which one of the following structures lies posterior to the thyroid gland:*
- *A. The carotid sheath*
- *B. The trachea*
- *C. The larynx*
- *D. Sternohyoid muscle*
- *E. Superior and inferior thyroid arteries*

- *Answer: E*

- *Brain sand can be seen in which one of the following:*
- *A. Parathyroid gland*
- *B. Suprarenal gland*
- *C. Pineal gland*
- *D. Pituitary gland*
- *E. Thyroid gland*

- *Answer: C*

- *Regarding the thyroid gland which of the following is true:*
- *A. Cuboidal epithelium is the structural & functional units of the thyroid gland*
- *B. Thyroid hormones are mainly synthesized in cuboidal epithelium*
- *C. The simple cuboidal epithelium undertakes iodide production*
- *D. Thyroid hormones are mainly synthesized in colloid*
- *E. All of the above*

- *Answer: D*

- *The synthesis of thyroidal hormones involves the following:*
- *A. Polypeptide chains of Tg (thyroglobulin) are synthesized in the Golgi body*
- *B. Iodide is synthesized by sodium-iodide symporter*
- *C. Lysosomal proteolysis of the droplets or vesicles hydrolyzes TG to release its iodinated amino acids and carbohydrates*
- *D. Newly formed Tg is transported to the cell surface in large apical vesicles*
- *E. All of the above*

- *Answer: C*

- *Development of thyroid gland, choose the wrong statement:*
- *A. The Lingual thyroid is the most common form of incomplete descent*
- *B. The ultimobranchial bodies form the follicular cells*
- *C. It descends in front of the pharyngeal gut and remains connected to the tongue by the thyroglossal duct*
- *D. By the seventh week, it reaches its final position*
- *E. It is an endodermal thickening in the floor of the pharynx between the tuberculum impar and the copula*

- *Answer: B*

- *The posterior lobe of the pituitary gland is derived from:*
- *A. Neural crest*
- *B. Rathke's pouch*
- *C. Neuroectoderm of the floor of the third ventricle*
- *D. First pharyngeal pouch*
- *E. First pharyngeal arch*

- *Answer: C*

- *The blood supply of the pituitary gland, choose correct statement:*
- *A. The inferior hypophyseal vessels arise from the internal carotid arteries and they primarily supply the pars distalis*
- *B. The hypothalamohypophyseal portal system provides the crucial link between the hypothalamus and the posterior lobe of the pituitary gland*
- *C. The superior hypophyseal arteries give rise to fenestrated capillaries (the primary capillary plexus) which drains into hypophyseal portal veins*
- *D. Most of the blood from the pituitary gland drains into the transverse sinus*
- *E. The superior hypophyseal arteries arise from the internal carotid arteries and supply pars distalis*
- *Answer: C*

- *About the development of the suprarenal glands, choose the wrong statement:*
- *A. Accessory tissue of the suprarenal gland may be found in gonads*
- *B. Its medulla originates from neural crest*
- *C. Its cortex has a mesodermal origin*
- *D. Some chromaffin cells migrate and invade the medulla of the suprarenal gland*
- *E. The acidophilic mesothelial cells will form the future glomerular and fascicular zones of the definitive cortex*

- *Answer: E*

- *The blood supply of the suprarenal glands, choose the correct statement:*
 - A. The inferior suprarenal artery is a branch from the musclophegenic artery*
 - B. The right and left suprarenal glands drain into the renal veins*
 - *C. The medulla has a single blood supply*
 - *D. The arterial and venous capillaries within the adrenal gland enable it to convert norepinephrine to epinephrine*
 - *E. The suprarenal gland receives the lowest blood supply in the body*

- *Answer: D*

- *The inferior parathyroid glands, choose the wrong statement:*
- *A. They contain chief and oxyphil cells*
- *B. Most of their blood supply comes from branches of inferior thyroid artery*
- *C. The inferior parathyroid glands occasionally migrate to the level of the aortic arch*
- *D. They are usually ventral to the nerve that accompanies the inferior thyroid artery*
- *E. They are derived from the dorsal wing of the fourth pharyngeal pouch*

- *Answer: E*

- *The suprarenal glands, choose the correct statement:*
- *A. The diaphragm lies posterior to both suprarenal glands*
- *B. Found at the level of the 9th rib*
- *C. The inferior vena cava lies anteriolaterally to the right suprarenal gland*
- *D. They are located intraperitoneally*
- *E. Both glands reach the hilum of the kidney*

- *Answer: A*

- *Eosinophilic cytoplasm, few rER, no secretory granules and abnormally shaped mitochondria are typical characteristics of:*
- *A. chief cells of the parathyroid*
- *B. Oxyphil cells*
- *C. Cells of the zona glomerulosa*
- *D. Cells of the zona fasciculata*
- *E. Cells of the zona reticularis*

- *Answer: B*

- *Regarding actions of the corticosteroids which is true:*
- *A. Glucocorticoids directly inhibit cardiac output*
- *B. The protein catabolic actions of the glucocorticoids result in a negative nitrogen balance*
- *C. The glucocorticoids decrease blood glucose*
- *D. The glucocorticoids decrease liver glycogen*
- *E. Protein catabolic actions of the glucocorticoids result in a nitrogen imbalance*

- *Answer: B (Not sure, Maybe E)*

- *One of the following is wrong:*
- *A. Rathke's pouch \Leftrightarrow evagination at the roof of the developing oropharynx which gives rise to the anterior pituitary (adenohypophysis)*
- *B. Pars distalis \Leftrightarrow which comprises the bulk of the anterior lobe of the pituitary gland and arises from the thickened anterior wall of the pouch*
- *C. The median eminence \Leftrightarrow part of the pituitary gland from which regulatory hormones are released*
- *D. Pars tuberalis \Leftrightarrow which develops from the thickened walls of the pouch and forms the sheath around the infundibulum*

- *Answer: C*

- *One of the following is TRUE:*
- *A. A circular fold of dura mater, the sella turcica forms the roof of pituitary fossa*
- *B. The diaphragma sella separates the posterior part of the lower surface of the gland from the optic chiasma*
- *C. A short stalk connects the pituitary gland to the hypothalamus called infundibulum*
- *D. Partially vacuolated venous sinus has endoscopic transnasal applications in many pituitary surgical centers*

- *Answer: C*

- *Choose the best description for autocrine signaling:*
- *A. The messenger molecules are usually rapidly degraded and hence can only work over short distances*
- *B. No answer describes it well*
- *C. Messenger molecules travel only short distances through the extracellular space to different cell types that are in close proximity to the cell that is generating the message*
- *D. Messenger molecules reach their target cells via passage through bloodstream*
- *E. The cell producing the messenger expresses receptors on its surface that can respond to that messenger*

- *Answer: E*

- *The wrong statement among the following:*
- *A. The medulla \Leftrightarrow Catecholamine-secreting portion.*
- *B. Inferior vena cava \Leftrightarrow Anteromedially to the right suprarenal gland.*
- *C. Stomach and lesser sac of peritoneum $\langle \rangle$ Anterior to the right suprarenal gland .*
- *D. Diagram \Leftrightarrow Posterior to both suprarenal glands*

- *Answer: C*

- *Adrenal Glands are located:*
- *A. Retroperitoneally (on the posterior parietal wall).*
- *B. At the level of 11th thoracic rib*
- *C. Lateral to first lumbar vertebrae*
- *D. Embedded in the perirenal fat superior and slightly anterior to the upper pole of the kidneys.*
- *E. All of the statements are correct*

- *Answer: E*

- *Regard the EMBRYOLOGY of the adrenal medulla, One of the following is wrong:*
- *A. Cortical cells originate from mesodermal mesenchyme adjacent to the urogenital ridge*
- *B. Medulla originates from ectodermal origin (neural crest cells) which differentiate into sympathetic neurons of the autonomic nervous system*
- *C. All of the cells of the primitive autonomic ganglia differentiate into neurons*
- *D. Fetal cortex produce steroid during gestation*

- *Answer: C*

- *The superior thyroid artery is initially associated with the be ligated..... during thyroidectomy.*
- *A. External Laryngeal Nerve, away the gland*
- *B. Internal Laryngeal Nerve, away from the gland*
- *C. External Laryngeal Nerve, near from the gland*
- *D. Recurrent Laryngeal Nerve, near the gland*
- *E. Recurrent Laryngeal Nerve, away from the gland*

- *Answer: C*

- *All of the following are TRUE EXCEPT :*
- *A. Bright Dot on the (MRI) is Vasopressin from the Anterior Pituitary*
- *B. pituitary gland is medial to cavernous sinus and inferior to optic chiasm and superior to sphenoid air sinus*
- *C. Superior hypophyseal arteries supply pars tuberalis*
- *D. blood can flow from posterior lobe to anterior lobe of pituitary gland*
- *Answer: A*

- *Superior thyroid vein drains into:*
- *Answer: **internal jugular vein***

- *Which one of the following is secreted by acidophilic cells of the pituitary gland:*
- *A. LH*
- *B. ACTH*
- *C. TSH*
- *D. Growth hormone*
- *E. FSH*

- *Answer: D*

Best of luck <3