miMind

Summary

pituitary gland

Embryo
- The anterior lobe >ectoderm > Rathke's pouch
- The posterior lobe > neuroectoderm of the floor of the third ventricle (the diencephalon)

Nerves
Nothing

Arteries
- Hypophysial arteries are branches of the intercavernous segment of The internal carotid artery
- The inferior branch supplies the posterior lobe of the pituitary gland
- The superior branch leads into the median eminence to start the hypophysial portal system to the anterior lobe

Venous
- drains into the cavernous sinus and then into the systemic circulation. (Internal Jugular vein)
- (Feedback) shortportal vein from pars distal to paris nervosa

Histo
- Cells of the adenohypophysis
1 Chromophils
A Acidophils (Somatotops + Mammotrops)
B Basophils (Gonadotrops + Thyrotrops +Corticotrops)
2 Chromophobes
3 Folliculostellate cells
- Neurohypophysis (Posterior Pituitary)
pituicytes(resemble astrocytes) + hering cell (acidophilic)

Thyroid gland

Embryo
- endodermal thickening in the floor of the pharynx between the tuberculum impar and the copula at a point later indicated by the foramen cecum
- The ultimobranchial bodies (from the fifth pharyngeal pouch) and neural crest cells are believed to be incorporated into the thyroid gland, where they form the parafollicular cells, which produce calcitonin.

Nerves
- Damage to the external laryngeal nerve results in an inability to tense the vocal folds and in hoarseness
- The muscles of the larynx are innervated by the recurrent laryngeal nerves, with the exception of the cricothyroid muscle, which is supplied by the external laryngeal nerve

Arteries
- A-The superior thyroid artery (branch of the external carotid artery+ accompanied byThe External Laryngeal Nerve)
- B-The inferior thyroid artery (a branch of the thyrocervical trunk + related to the RECURRENT LARYNGEAL NERVE)
- C- Sometimes the thyroidea ima. (arises from the brachiocephalic trunk, or the arch of the aorta, from the right common carotid subclavian, or internal thoracic arteries)

Veins
A-Superior thyroid vein
which drains into the internal jugular vein;
B-The middle thyroid vein
which drains into the internal jugular vein;
C-The inferior thyroid vein
They drain into the left brachiocephalic vein in the thorax

Lymph
- prelaryngeal, pretracheal, and paratracheal lymph nodes, which drain in turn to the superior and inferior deep cervical nodes
- The Delphian node enlargement of which is indicative of metastasis from thyroid or laryngeal carcinoma

Histo
Follicular cells (principal cells)
Parafollicular cells (Clear cells, C cells)

parathyroid Gland

Embryo
- epithelium of the dorsal wing of the third pouch differentiates into INFERIOR PARATHYROID GLAND
- Epithelium of the dorsal wing of the fourth pharyngeal pouch forms THE SUPERIOR PARATHYROID GLAND

Arteries
- most comes from branches of Inferior thyroid artery
20% from superior thyroid artery

Histo
- 2 cells types of the Parathyroid:
Chief cells secrete parathormone (PTH).+ Oxyphil cells

suprarenal glands

Embryo
- cortical cells originate from mesodermal mesenchyme
A Both zona Glumerulosa and zona fasciulata come from permanent cortex
B zonaReticular is comes from fetal cortex
- the medulla originates from ectodermal origin (neural crest cells)

Nerves
- T5 T6 T7 T8 preganglionic Sympathetic nerves

Arteries
- Superior suprarenal a. from the inferior phrenic artery
- Middle suprarenal a. from the abdominal aorta.
- Inferior suprarenal a. From the renal artery.
The three above form:
A) short capsular capillaries that supply the capsule.
B) intermediate fenestrated cortical sinusoidal capillaries that supply the cortex
C) long medullary arterioles that traverse the cortex travelingwithin the trabeculae, and bring arterial blood to the medullary capillary sinusoids.

Venous
- via the suprarenal veins: only one central vein for each gland, the large central adrenomedullary vein]
- the right suprarenal vein (short) drains into the inferior vena cava
- the left suprarenal vein (longer) drains into the renal vein or the left inferior phrenic vein

PINEAL GLAND

Embryo
- develops from neuroectoderm of the posterior portion of the roof of the diencephalon and remains attached to the brain by a short stalk.

Histo
- two types of parenchymal cells:
Pinealocytes (chief cell of pineal gland) + Interstitial (glial) cells.
- brain sand

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Times :

- Thyroid gland start developing in 3 week and get in it final position in 7 week
- parathyroid start developing in 5 week
- adrenal gland → cortex (4-6 week) → first wave (begining of 8 week), second wave (end of 3 month)
  → medulla (6 week)