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Zoology
Part - II
Paper - II

Pituitary Gland / Hypophysis Cerebri

Pituitary Gland is an ectodermal endocrine gland.
Position: It is located in the brain just behind the optic chiasma as an extension from the floor of the Hypothalamus. It is lodged in a depression in sella-turcica or hypophysial fossa of the sphenoid bone.
Colour - It is a reddish-grey colour.
Shape - It is pea / nut / oval in shape.
Size - In Man its wt. (weight) about 0.6 gm / 60 mg.
Diameter - Its size about 10 mm. (diameter)

Structure:
Pituitary gland has dual origin both components being derived from the Ectoderm. These are -
Adenohypophysis & Neurohypophysis

Adenohypophysis - It is made of non-neuronal tissue. It is derived from dorsal diverticulum of pharynx, called Rathke's pouch. It consists of:
Pars tuberalis - It is made of cuboidal cells
Pars distalis - It is made of acidophils, basophils & chromophobic cells
Pars intermedia: It is made of polygonal cells. The pars tuberalis & pars distalis being the anterior lobe of the older terminology. The Adenohypophysis consists of cells (chromophobes & chromophils), which themselves secrete hormone with the exception of the pars tuberalis, which is simply a supporting structure for the gland and its blood-vessel.

Neurohypophysis - It is made of nervous tissue. It is derived from ventral diverticulum of hypothalamus (in diencephalon) called infundibulum. It forms axons nervosa which is made of star like cells.

Pituitary consists of three distinct lobes:

- (i) Anterior lobe - It's made of Pars distalis & Pars tuberalis.
- (ii) Middle lobe (intermediate lobe) - made of Pars intermedia.
- (iii) Posterior lobe - It's made of Pars nervosa.

Pituitary secretes proteinaceous hormones. The release of hormones from anterior pituitary is controlled by respective releasing factors (RF), secreted by hypothalamus.

<u>Anterior lobe</u>	<u>Middle lobe</u>	<u>Posterior lobe</u>
- GH (STH)	MSH	ADH
- ACTH		<u>Oxytocin</u>
- TSH		
- GTH $\left\{ \begin{array}{l} \text{FSH} \\ \text{LH} \end{array} \right.$		
- LTH		

