

Testicular Nephridia (Bsc Part-I)

A typical testicular nephridium is horse-shoe-shaped in appearance and is distinguished into six parts.

- (I) Main lobe.
- (II) Vesicle.
- (III) Apical lobe.
- (IV) Inner lobe.
- (V) Initial lobe.
- (VI) Ciliated organ.

(I) Main lobe :- It is the horse shoe proper of the nephridium situated ventro laterally between the adjacent caecae of crop. It is distinguished into a large anterior limb and a small posterior limb.

(II) Vesicle :- The anterior limb of the main lobe is continued into a narrow vesicle duct which runs posteriorly to open into the vesicle. The vesicle is a large, oval, non contractile thin-walled sac lined internally by ciliated epithelium. A short narrow duct arises from the inner side of the vesicle and opens to the exterior through nephridiopore.

(III) Apical lobe :- The posterior limb of main lobe is continued anteriorly into an apical lobe, situated antro-posteriorly beneath the crop. It is thick and stout and its anterior end

is swollen and bent upon itself like the head of a walking stick. The cells lining the apical lobe are large and transverse by numerous regular intracellular canals.

(iv) Inner lobe :- it is a slender, much elongated transparent cord like structure bound closely twined around the apical lobe for about half its length. Posteriorly it joins the main lobe.

(v) Initial lobe :- Running between the ends of main lobe and situated in its concavity is bound a short narrow inner lobe, also known as incurrent lobe. its posterior end joins the blindly close to the perinephrostomial ampulla. The intracellular canal of the initial lobe gives out numerous diverticulae in each segment.

(vi) Ciliated Organ :- The perinephrostomial ampulla lodges a specialized ciliated organ. which is suspected from its inner wall by 4 or 5 strands or trabeculae. it corresponds to the nephridiostome or funnel of a typical nephridium. it can be distinguished into central reservoir & ciliated funnel.