9. T. S. of Amphioxus through oral hood

Comments :

Transverse section of *Amphioxus* passing through the region of **oral hood** shows the following details :

1. Body wall comprises single layer of **epidermis.**
2. On the dorsal surface **dorsal fin** having the **dorsal fin ray** is present.
3. **Myotomes** separated by **myocommata** are present on both the sides in the dorsal half portion of the section.
4. Dorsal tubular **nerve cord** containing **ocellus** lies below the dorsal fin.
5. **Notochord** composed of vacuolated cells, is enclosed in the notochordal sheath and lies below the nerve cord.

6. The oral hood encloses a large **buccal cavity.**

7. The dorsal wall of the buccal cavity has a groove called **Hatscheck's groove** which is sensory in nature.

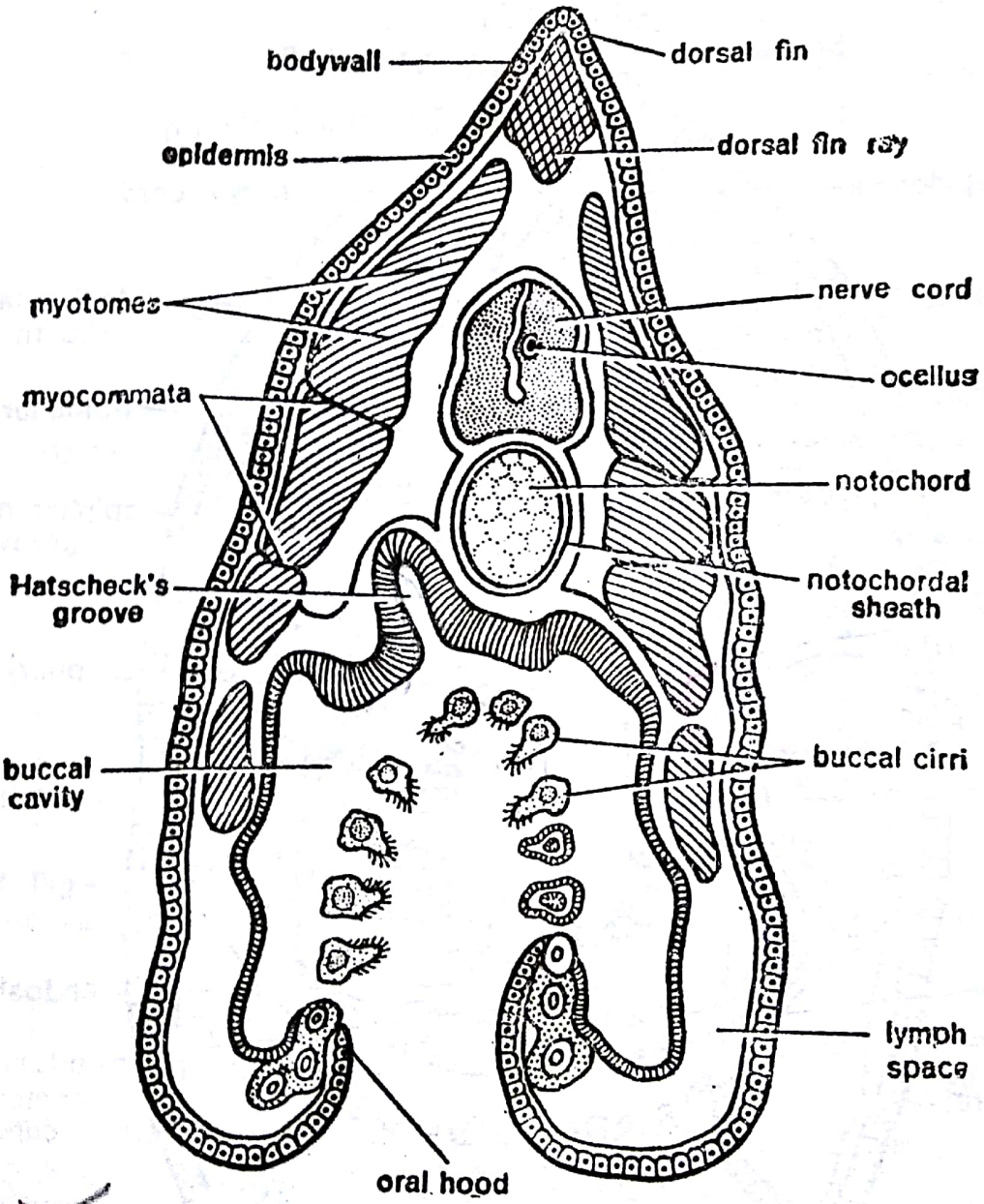

Fig. 261. T. S. of *Amphioxus* through oral hood.

8. In the buccal cavity several sections of the buccal cirri are seen.

10. T. S. of Amphioxus through anterior-

11. T. S. of Amphioxus through posterior-pharynx showing testes and liver diverticulum

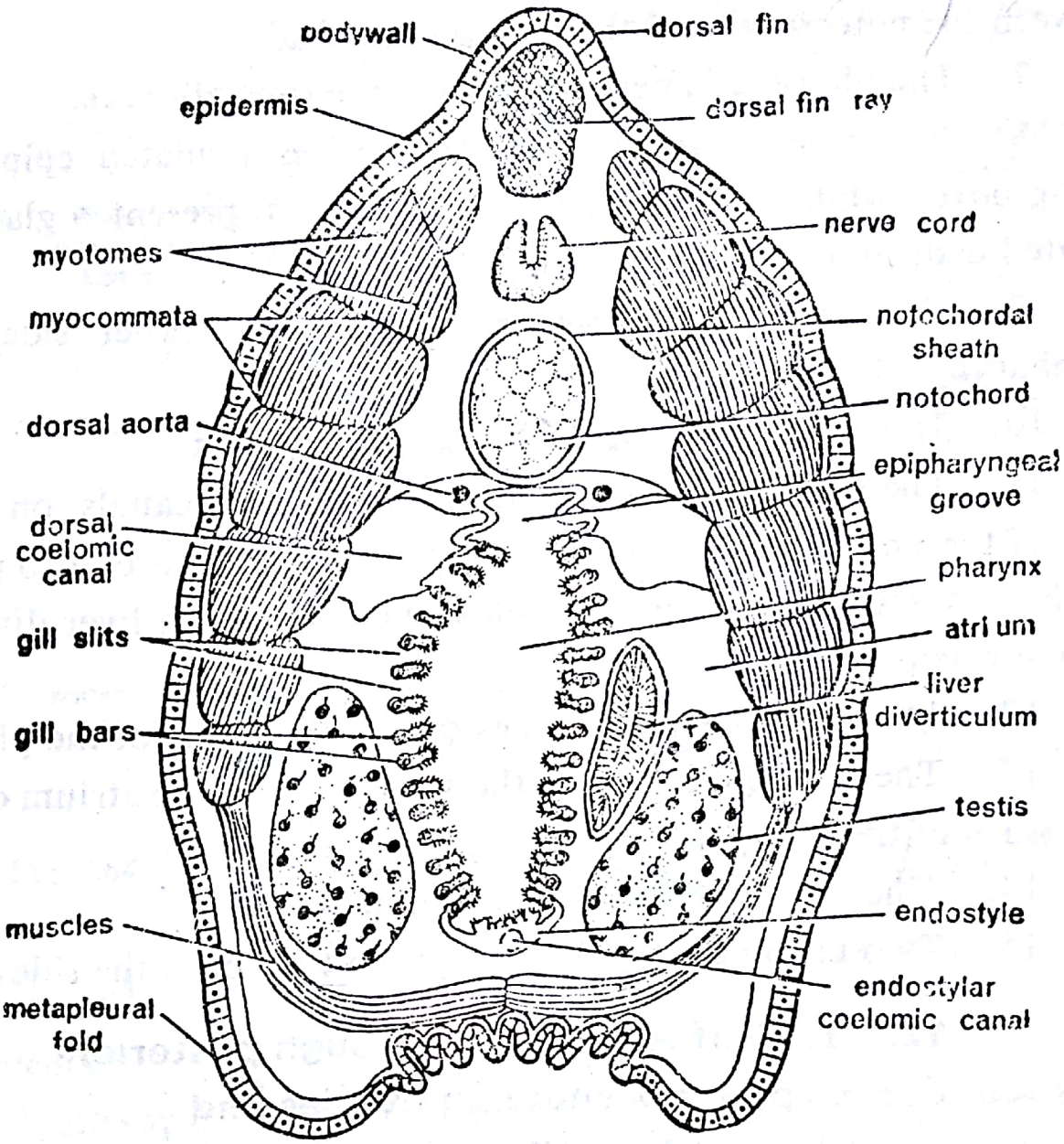

Fig. 263 T. S. of *Amphioxus* through posterior pharynx showing testes and liver diverticulum.

Comments :

Transverse section of *Amphioxus* through the **posterior-region of pharynx** showing liver diverticulum and testes reveals the following structure :

1. Body wall is formed of **epidermis** which is composed of single layer of simple columnar epithelium.

2. **Dorsal fin** having the **dorsal fin ray** is present on the dorsal surface.

3. **Myotomes** separated by **myocommata** are present on both the sides.

4. Nerve **cord** contains a central canal and lies below the dorsal fin ray.

5. **Notochord** composed of vacuolated cells and surrounded by **notochordal sheath,** lies below the nerve cord.

6. **Pharynx** is quite spacious occupying the most of the space between the notochord and the metapleural folds.

7. The pharynx is perforated by numerous **gill-slits.**

8. In the mid-dorsal line of pharynx lies a ciliated **epipharyngeal-groove,** while in the mid-ventral line is present a glandular ciliated **endostyle.**

9. Two dorsal aortae are present, one on either side of the epipharyngeal groove.

10. The **atrium** is present around the pharynx.

11. The **coelom** appears as dorsal coelomic canals on either side of the epipharyngeal groove. Parts of coelom are also present in the endostyle, in metapleural folds and around the liver diverticulum and gonads.

12. The **liver diverticulum** lies on the right side of the pharynx.

13. The **testes,** one pair in the section, lie in the atrium on both the sides of the pharynx.

14. The testes contain several spermatozoa.

15. Two **metapleural folds** are present on both the sides.

12. T. S. of Amphioxus through posterior-pharynx showing ovaries and liver-diverticulum

Comments :

1–12 points are the same as in the previous section.

13. The **ovaries,** one pair in the section, lie in the atrium on both the sides of the pharynx.

14. The ovaries contain several ova.

15. Two **metapleural folds** are present on both the sides.

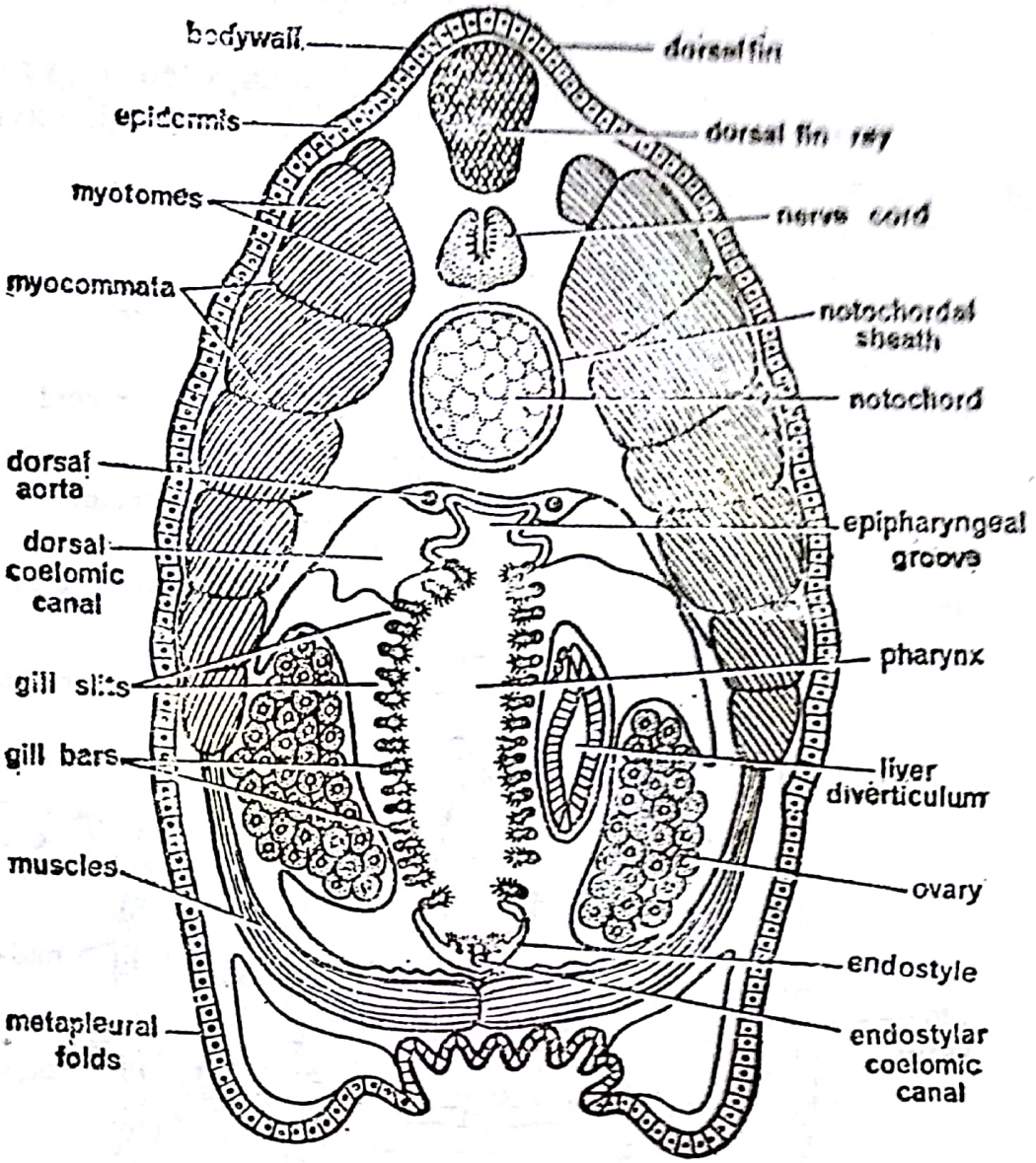

Fig. 264. T. S. of *Amphioxus* through posterior region of pharynx showing liver-diverticulum and ovaries.

13. T. S. of Amphioxus through intestine

16. T. S. of Amphioxus through caudal region

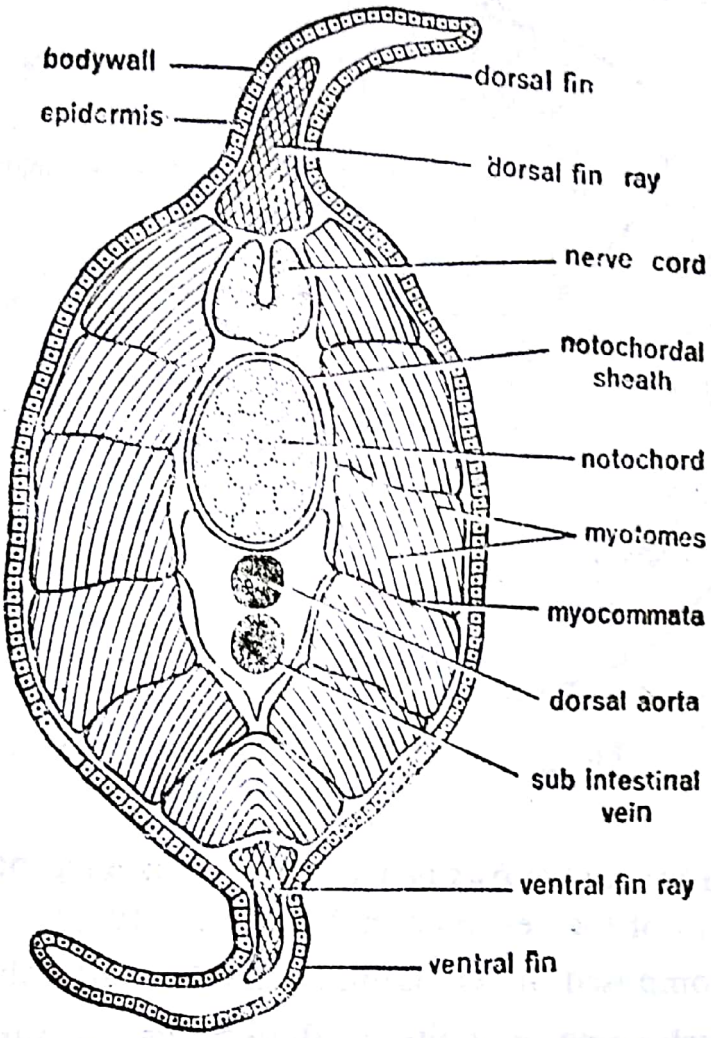

Fig. 268. T. S. of *Amphioxus* through caudal region,

Comments :

Transverse section of *Amphioxus* passing through the caudal region shows the following structures :

1. Body wall comprises single layer of **epidermis** which is composed of simple columnar epithelium.
2. **Dorsal** and **ventral fins** containing the respective fin-rays are also present.
3. **Myotomes** separated by **myocommata** are presert on both the sides.
4. Dorsal tubular **nerve cord** lies below the dorsal fin ray.
5. **Notochord** is surrounded by **notochordal sheath** and composed of vacuolated cells. It occupies the central portion of the section.
6. **Dorsal aorta** and **sub-intestinal vein** lie below the notochord; the dorsal aorta is dorsal to the vein.
7. The intestine, coelom and atrium are wanting.
8. Metapleural folds are also absent.