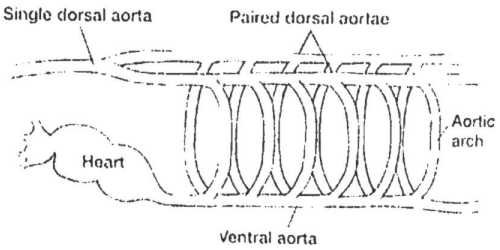
COMPARATIVE ANATOMY AND STRUCTURAL ORGANIZATION OF AORTIC ARCHES IN VERTEBRATES

Definition: Paired arteries connecting the ventral aorta with dorsal aorta in vertebrates in their adult or developmental stages are known as aortic arches.

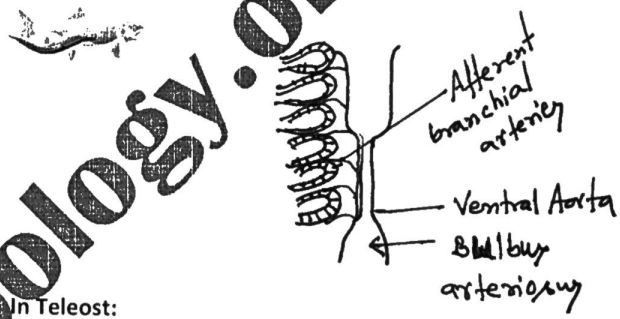


In Cyclostome:

i)Number- 8-16 pairs (e.g; in *Petromyzon* the number is 8).

ii) The aor-tic arch is divided into afferent branchial artery and efferent branchial artery.

iii)Ventral aorta- extends forward for a considerable distance.



In Chondrostei and Dipnoi:

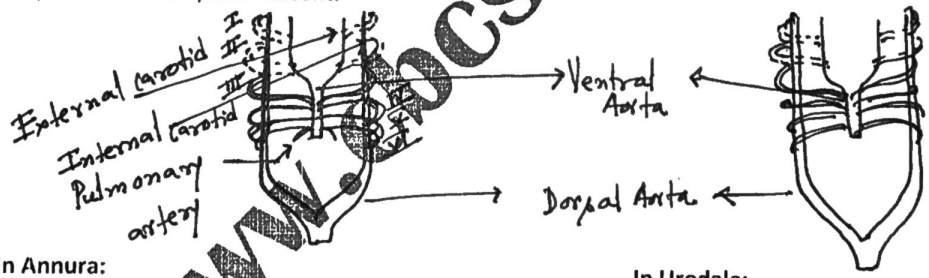
i)A pair of pulmonary artery arise by modification of 6th pair of aortic arch.

II)The 1st and 2nd pairs –absent.

In Teleost:

i)Aortic arch is 4 pairs in number.

ii)The 1st and 2nd pairs –absent.



In Annura:

i)Branching of aortic arch into afferent and efferent porions- Absent.

ii)Number of aortic arches absent- 1st, 2nd and 3rd pairs.

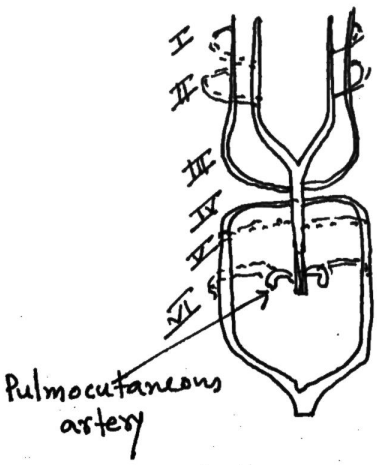
iii)Radix between 3rd and 4th arches- gradually dwindles away.

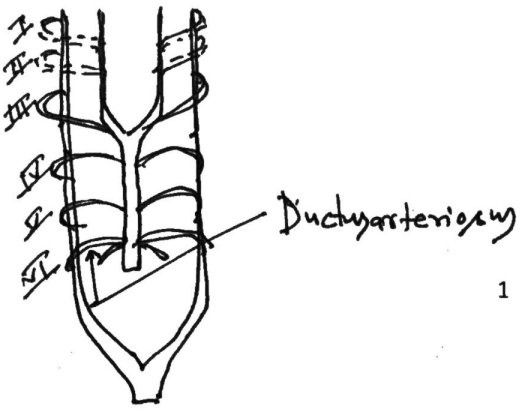
In Urodale:

i)Aortic arch is 4 pairs in number.

ii)The 1st and 2nd pairs –absent.

iii)Radix between 3rd and 4th arches- Not degenerated completely.





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