

AORTIC ARCHES IN VERTEBRATES

Introduction:

- In front of the heart is the ventral aorta which extends anteriorly and divided into two aortic arches.
- These two aortic arches pass upward on either side of the pharynx until they reach its dorsal side and then turn posteriorly as lateral dorsal aortae which finally join to form the dorsal aortae.
- The aortic arches connect the ventral aorta to the radicles aortae.
- They are regarded as the part of circulatory system of the vertebrates.
- The arrangement of aortic arches has been found to vary in different groups of vertebrates.

BASIC PLAN OF AORTIC ARCHES:-

- The basic architectural plan of aortic arches is seen in all vertebrates embryos.
- The aortic arches arise as paired branches from the ventral aorta.
- They run upwards around the pharynx and on the dorsal side they join together to form a lateral dorsal aorta.
- Behind the pharynx the two lateral dorsal aortae meet and fuse together to form a median dorsal aorta.
- The embryo of all vertebrates contains six-pairs of aortic arches.

- The first aortic arch is called mandibular aortic arch.
- The second is called hyoid aortic arch.
- The remaining ones are called third, fourth, fifth and sixth aortic arches.

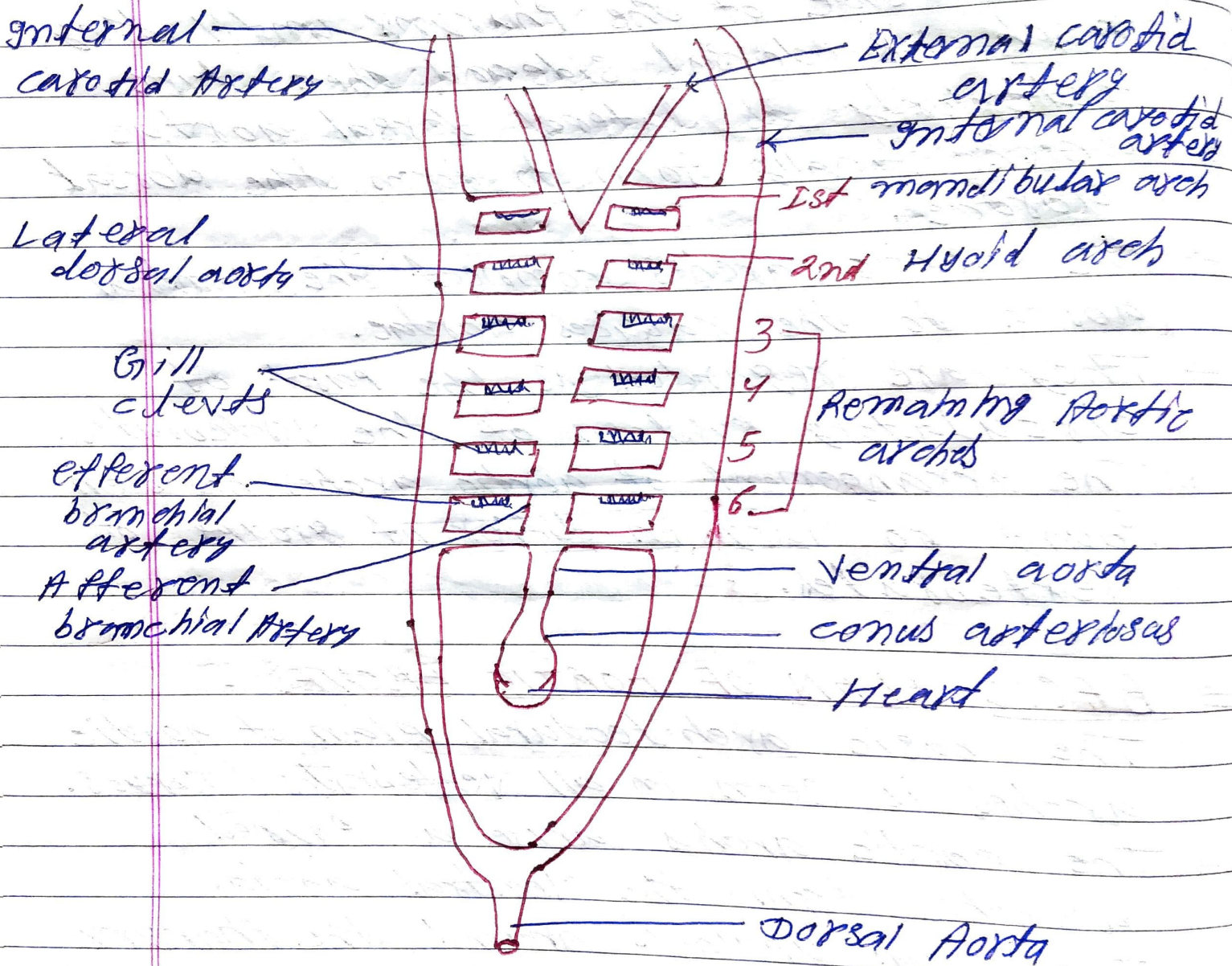


Fig: - Embryonic Scheme of Aortic Arch