

parallel with, and close to the posterior border of the ulna. It terminates by anastomosing with the next branch.

(d) *A branch* coming off from the ulnar artery, just before the latter leaves the palmar surface of the wing, passes obliquely downwards and inwards below the wrist joint, and reaching the posterior border of the wing extends as far as the tip of that organ. By means of the anastomosis of this with the preceding branch, there is formed a vessel which extends along the whole length of the posterior margin of the wing from the elbow joint to the tip. This vessel lies alongside of the brachial vein.

(2.) *The Common Carotid Artery.*

In all the Penguins which I have examined, there are two common carotid arteries of equal size, both of which occupy the inferior middle line of the neck. Each after separating from the trunk of the innominate artery is directed forwards and inwards, and gains the middle line of the neck at a point which corresponds to the great inferior convexity of that portion of the vertebral column. Here the arteries of opposite sides come into contact. Thereafter they pass directly forwards, lying in the interval between the longi colli muscles of opposite sides, the artery of the left lying slightly below (in front of) that of the right side. The arteries lie in contact as far as the middle in length of the groove between the recti antici majores muscles, but beyond this point diverge from one another, and after crossing the front of the corresponding rectus anticus muscle, each divides opposite the posterior extremity of the mandible into the carotis cerebralis and the carotis facialis. The two common carotid arteries are of equal size, and have similar relations except at their terminations. The artery of the right side, in consequence of the deviation of the trachea and œsophagus from the middle line crosses these tubes, while the left carotid artery has no relation to them.

In *Aptenodytes*, on account of the lesser deviation of the œsophagus and trachea from the middle line of the neck in that genus than in *Eudyptes*, both the common carotid arteries at their termination come into relation with these tubes.

The common carotid artery, in addition to the external and internal carotids, gives off four named branches, all of which arise from the parent trunk one inch from its commencement. They are the œsophageal, the transversalis colli, the vertebral, and the arteria cutanea colli.

The Œsophageal Artery.—This is a small branch which comes off from the common carotid close to the thyroid gland. It passes obliquely forwards and inwards, and coming into contact with the œsophagus, supplies the walls of that tube.

The Transverse Cervical Artery is likewise a small branch, which, after leaving the common carotid, passes transversely outwards, and supplies the soft parts in the neighbourhood of the shoulder joint and on the dorsal surface of the scapula.

The Vertebral Artery.—After leaving the carotid trunk this branch is directed