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# Presence of an abnormally positioned brachiocephalic artery and common carotid arteries in a female corpse: a case report

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The brachiocephalic artery (BCA) arises from the aortic arch behind the midpoint of the manubrium and ascends postero-laterally towards the neck in front of the trachea. It divides in to right subclavian and right common carotid artery (RCCA) behind the upper border of the right sternoclavicular joint. The left common carotid artery (LCCA) is arising as a direct branch of the arch of the aorta. Anomalies of BCA and common carotid arteries in their course and branching pattern occur frequently and are a potential surgical hazard in various operative procedures in the neck.

This case report describes an anomalous course and bifurcation of brachiocephalic and common carotid arteries in a female cadaver found during a routine dissection session at the Department of Anatomy, Faculty of Medicine, Peradeniya.

Here, the BCA had a normal origin and ascended upwards in front of the trachea up to the lower border of the 2nd tracheal cartilage, located beneath the left lobe and the isthmus of the thyroid crossing the trachea transversely towards the right side on the third tracheal cartilage to lie beneath the right lobe of the thyroid and bifurcates. The total length of the BCA was 3.8 cm that included the ascending part of1.3cmand a transverse part of 2.5cm.

RCCA had abnormal course and bifurcated at the level of the tip of the grater horn of the hyoid bone. The LCC had a normal intra-thoracic course and just above the level of the sternoclavicular joint, it kinked medially and posteriorly making an angle of 60 degrees. Then, it again ran anteriorly and ascended up to the left of the left thyroid lobe. LCCA too bifurcated at the same level as the RCCA.

High bifurcation of BCA is rare, and reported in cadaveric studies as an accidental finding in patients with problems related structures in the neck. Other than its vulnerability in surgical procedures and interventions in the neck region, suprasternal pulsations of BCA may mimic an aortic aneurysm. Further, it may cause problems in the diagnosis of other conditions such as thyroid pathologies. As such, identification of high bifurcation of the BCA is important in clinical practice.