

Anatomical Variations of Ansa Cervicalis: A Case Series of Sri Lankan Cadavers

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Ansa cervicalis (AC) is a nerve loop in the neck, containing the ventral rami of cervical spinal nerves, C1-C3. The loop is formed over the carotid sheath by the union of the superior root (C1–2) and the inferior root (C2–C3) and innervates the infrahyoid muscles. It innervates muscles involved in swallowing, vocalization, neck stability and is also used in nerve anastomosis in laryngeal paralysis. As it exhibits numerous anatomical variations, proper understanding of the anatomy is important in reconstructive surgery. However, Sri Lankan studies on the area are very minimal. In this case series, seven bilaterally dissected cadavers of routine dissection classes, including five males and two females in the age range of 70-90 years, were observed. Eleven intact ACs were found, in which eight were bilateral and three unilateral. The position of AC was also observed in relation to the internal jugular vein (IJV) and superior belly of omohyoid muscle (Om). In relation to IJV, it was categorized as medial and lateral, where the superior root being medial and inferior root being lateral to IJV, is considered as lateral type, and when both roots are medial to IJV, it is classed as medial type. There were 27.2 % medial type and 72.7 % lateral type ACs. In bilaterally dissected cadavers, two out of four (50%) were symmetrical. Out of the eleven ACs, three (27.2%) were below Om and one (9.09%) above and seven (63.6%) were at the level of Om. Compared to available literature worldwide and in Sri Lanka our findings in relation to IJV were similar however, in those studies, the majority of AC were reported as being superior to Om. Our findings highlight the diverse anatomical variations in the location of the ansa cervicalis. Therefore, we recommend further studies for Sri Lankan population which will be a good guide for the surgeons.

Keywords: Ansa Cervicalis, Anatomical Variation, Cadavers, Cervical Plexus