

## A Cadaveric Study of Branching Pattern of Arch of Aorta and Its Clinical Significance in Nepalese Population

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**Abstract :** Background: The arch of aorta is a large artery that arches over the root of the left lung and connects the ascending aorta and descending aorta. It is situated in the superior mediastinum behind the manubrium sterni. It gives off three major branches i.e. brachiocephalic trunk, left common carotid artery and left subclavian artery arising from the superior surface of arch of aorta from right to left. Material and Methods: This was a descriptive study. It was carried out in 44 cadavers, obtained during dissections for undergraduates of Department of Anatomy, Chitwan Medical College, Bharatpur, Chitwan, between March 2015 to October 2016. Cadavers of both sexes were included in the present study. The arch of aorta was dissected and exposed according to the methods described by Romanes in Cunningham's manual of practical anatomy. Results: Out of 44 dissected cadavers, 35 (79.54%) were male and 9 (20.46%) were female cadavers. The normal branching pattern of the arch of aorta was encountered in 28 (63.64%) cadavers and the remaining 16 (36.36%) cadavers showed variations in the branching pattern of arch of aorta. Two different types of variations on the branching pattern of arch of aorta were noted in the present study, in which 12 (27.27%) cadavers had common trunk of the Arch of Aorta. In 3 (5.00%) male cadavers, we found the origin of the Thyroid ima artery. This variation was noted in 1(1.66%) female cadaver. Conclusion: The present study carried out on adult human cadavers' revealed wide variations in the branching pattern of the arch of aorta. These variations are of clinical significance and also very useful for the anatomists, radiologists, anesthesiologists, surgeons for practice during angiography, instrumentation, supra-aortic thoracic, head and neck surgery.

**Keywords :** arch of aorta, brachiocephalic trunk, left common carotid artery, left subclavian artery, Thyroidea ima artery

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