Anatomical variations of terminal branching pattern of the brachial artery

Abeywardhana UNY[1]*, Wahalawatte YR[1], Dissanayake JK[1], Amaratunga HA[1]

[1]*Department of Anatomy, Faculty of Medicine, University of Peradeniya.*
**niroabey@yahoo.com*

The arterial distribution of the upper limb shows numerous anatomical variations (9% -18.5%). Knowledge about these variations is important during surgeries, intra-arterial injections, venipuncture and imaging of the upper limb. With this background a study was conducted on 54 upper limb specimens of 27 cadavers during routine dissection at the Department of Anatomy, Faculty of Medicine, Peradeniya. The anterior compartment of the arm, cubital fossa and the forearm were dissected accordingly, and the pathway and the distribution of the brachial artery and its branches were documented. Variations of the brachial artery anatomy were noted in 3 specimens (5%). Unilateral high bifurcation of brachial artery was noted in two specimens on the left side. In one specimen, the bifurcation into its terminal branches, ulnar and radial, was directly from the axillary artery at the axilla just proximal to the formation of the median nerve. In the other specimen, the brachial artery bifurcation into ulnar and radial branches was found at the level of the mid humerus. Unilateral trifurcation of the brachial artery was noted in the third specimen. The brachial artery was seen to trifurcate into radial, ulnar and common interosseus arteries at the level of the neck of the radius. High brachial artery bifurcation and trifurcation of the brachial artery in the upper arm were noted in this study. Reporting of such variations in different populations is important for the practicing clinician during diagnostic and surgical procedures.