

The superficial ulnar artery: an unusual origin and course

A. A. D. Wickramarathna*, T.D. Nanayakkara, A.M.B.D. Alahakoon, F.N. Nasim, P. P.B. Herath, E.M.K.G.B.K. Ekanayaka, H.R. Gunasena and J.K. Dissanayake

Department of Anatomy, Faculty of Medicine, University of Peradeniya, Sri Lanka
**dilinianosha.da@gmail.com*

The brachial artery which is the continuation of the axillary artery divides into radial and ulnar branches at the level of the neck of the radius in the cubital fossa. Ulnar artery passes deep to the deep head of pronator teres, fibrous arch of the flexor digitorum superficialis muscle and median nerve. Running medially with ulnar nerve on its ulnar side it enters the palm to continue as the superficial palmar arch. Superficial ulnar artery (SUA) is a rare anatomical variation where the artery runs close to a major vein throughout its course. Therefore, it is at risk of damage during interventions such as venepuncture.

During the routine dissection of an adult male cadaver in the Department of Anatomy, Faculty of Medicine, Peradeniya, an unusual origin and course of ulnar artery was found on the left side. The origin of the SUA was from the 2nd part of axillary artery just proximal to the confluence of medial and lateral roots of the median nerve. It had a course medial to the median nerve immediately underneath the deep fascia and passed onto the forearm above the forearm flexor muscles. Having a superficial course in the forearm closely related to the basilic vein, it came in to the normal position between ulnar nerve and flexor carpi ulnaris tendon at mid forearm level.

According to literature SUA has been described to be arising directly from the axillary or brachial artery. In some instances the brachial artery too adapts a superficial course and gives rise to SUA which is also known as superficial brachioulnar artery.

Variations in the arterial system in extremities are a major clinical concern, especially in surgery, venepuncture and interventional radiology. Accidental arterial cannulations at ventromedial forearm could occur during anaesthesia. Accidental intra-arterial injection of some drugs may lead to gangrene in the distal parts of the limb. Therefore, it is important to understand its occurrence, the types and course of such variations in different populations to prevent such iatrogenic damage which may end up in consequences such as loss of a part of a limb.