

PP 10 Multiple arterial variations in the upper limb and its clinical significance – a case report

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INTRODUCTION: A sound Knowledge regarding the variations in the principal arteries of the upper limb has clinical significance.

OBJECTIVES: It is important to rule out these variations before performing surgical and invasive procedures to avoid complications.

METHODS: Multiple arterial variations were observed during routine dissection of the right upper limb of a 56 year old female Sri Lankan cadaver

RESULTS: The third part of axillary artery divided into superficial brachial artery and a lateral trunk for the subscapular, anterior and posterior circumflex humeral, and profunda brachii arteries. The Lateral trunk was embraced by the roots of the median nerve at its commencement. The Superficial brachial artery continued in the arm and crossed the median nerve superficially from medial to lateral in the middle of the arm. At the level of the interepicondylar line. It gave off superficial ulnar artery (SUA) and continued under the bicipital aponeurosis. It divided into radial and common interosseous arteries which followed their usual course. The SUA coursed over the bicipital aponeurosis and forearm flexor muscles. In distal third of the forearm it turned medially and was closely related to the ulnar nerve as normal ulnar artery. It continued over the flexor retinaculum and formed the incomplete superficial palmar arch, which gave off a common trunk for radialis indicis and princeps pollicis arteries in addition to the normal palmar digital arteries.

CONCLUSION: This is a rare variation that surgeons, radiologists and nurses should know about. Clinically SUA can lead to an accidental intra-arterial injection, a misinterpretation of incomplete angiographic images and accidental division during raising radial forearm flaps. Superficial position also makes them more vulnerable to trauma. On contrary it can be used for reconstructive fasciocutaneous ulnar forearm flaps and it has an easy access for arterial cannulation. Careful palpation and Doppler ultrasound provides a confident diagnosis of this variation.