

Anomalous division of axillary artery and accompanying abnormal neurovascular relationship - A case study

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Abstract

The developing diagnostic and interventional procedures in cardiovascular diseases require a sound knowledge about variations in the arterial pattern and the arterial variations in the arm are of potential clinical implications as it is a frequent site of injury and also involved in many surgical and invasive procedures. During routine dissection we encountered a unilateral abnormal branching pattern of left axillary artery in a 60 year old female Sri Lankan cadaver. The third part of the axillary artery divided into two equal size branches: the superficial and the deep brachial arteries. The superficial brachial artery continued in the arm as the brachial artery proper, medial to the median nerve. In the middle of the arm, the median nerve crossed the superficial brachial artery obliquely behind the artery from lateral to medial and situated medial to the superficial brachial artery at the elbow. It gave muscular branches in the arm and ended in the cubital fossa by dividing into ulnar and radial arteries. The commencement of deep brachial artery was embraced by the two roots of the median nerve; the lateral root crossed in front of the deep brachial artery and joined the medial root to form the median nerve in between the superficial and deep brachial arteries. The medial root of the median nerve from its origin passed deep to the superficial brachial artery and was found in between the superficial and deep brachial arteries. The deep brachial artery gave rise to subscapular, anterior and posterior circumflex humeral and profunda brachii arteries. It terminated by dividing into ulnar collateral arteries. These variations should be known for accurate diagnostic interpretation and to avoid complications during the surgery of the axillary region.

Keywords: Axillary artery, branches, variations, median nerve