RÉSUMÉ

Origine commune de la deuxième et la troisième artères digitales dans un arc palmaire superficiel de type ulnaire – présentation de cas

L’arcade palmaire superficielle (APS) est généralement formée par une anastomose entre l’artère ulnaire et l’artère radiale en résultant trois artères digitales palmaires communes. De nombreuses variations de la APS ont été rapportées dans la littérature de spécialité (arc de type cubital, arc de type radial, arc complet et incomplet, etc.). La APS complète serait formée dans 69,2% des mains droites et 70,5% des mains gauches dans la littérature de spécialité. Dans la présente étude, nous rapportons un cas de APS de type ulnaire complet, où les première et seconde artères digitales palmaires émergent d’une tige commune.

Mots-clés: arcade palmaire superficielle, artère ulnaire, artère radiale, cadavre.

CASE REPORT

COMMON ORIGIN OF THE SECOND AND THIRD PALMAR DIGITAL ARTERIES IN AN ULNAR TYPE SUPERFICIAL PALMAR ARCH: A CASE REPORT

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ABSTRACT

The superficial palmar arch (SPA) is usually formed by an anastomosis between the ulnar artery (UA) and the radial artery (RA) and gives off three common palmar digital arteries. Many variations of the SPA have been reported in the pertinent literature (ulnar type arch, radial type arch, complete and incomplete arch, etc). Complete SPA is reported to be formed in the 69.2% of the right hands and 70.5% of the left hands in the pertinent literature. We report a case of a complete ulnar type SPA, where the first and second palmar digital arteries emerge from a common stem.

Keywords: superficial palmar arch, ulnar artery, radial artery, cadaver.
**Case Report**

The reported anatomical variations were discovered in the upper extremities of a male Caucasian cadaver, during routine educational dissection at the Anatomy Department of the Medical School of the University of Athens, Greece. The cadaver derived from body donation with informed consent, written and signed (with signature authentication) by the donor himself. The anatomy of the branches of the UA and RA and the arterial pattern of the palmar arches were carefully examined in each arm. During this procedure, we discovered an abnormal pattern of the SPA in the right hand.

The UA at the level of the wrist, passed over the flexor retinaculum and entered the palm, with the ulnar nerve, where it created the superficial palmar arch, which gave off three common palmar digital arteries (Figure 1). The first one was an aberrant one and supplied the index and thumb, normally irrigated by the radial artery itself or the deep palmar arch. The second one gave a common stem which after a short course divided in two branches which substituted the first and second digital arteries for second and third web space (Figure 1). Then the SPA continued its course and gave rise to the third palmar digital artery (for the third and fourth web space) and finally to the palmar digital artery for the medial side of the little finger (Figure 1). The SPA was formed only by the UA and was complete as a fairly wide branch (for the third and fourth web space) may rise from the superficial branch of the UA.

In the present study, we report a case of a complete SPA, being formed by the UA only, where the first and second palmar digital arteries emerge from a common stem.
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anatomical variations in the palm area may be the cause of nerve entrapment syndrome or ischemia.

Compliance with Ethics Requirements:

“The authors declare no conflict of interest regarding this article.”

“The authors declare that all the procedures and experiments of this study respect the ethical standards in the Helsinki Declaration of 1975, as revised in 2008 (5), as well as the national law. Informed consent was obtained from the patient included in the study.”

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