



Intravenous literature: Mikuni, Y., Chiba, S. and Tonosaki, Y. (2012) Topographical anatomy of superficial veins, cutaneous nerves, and arteries at venipuncture sites in the cubital fossa. Anatomical Science International. Nov 7. .

Abstract:

We investigated correlations among the superficial veins, cutaneous nerves, arteries, and venous valves in 128 cadaveric arms in order to choose safe venipuncture sites in the cubital fossa. The running patterns of the superficial veins were classified into four types (I-IV) and two subtypes (a and b). In types I and II, the median cubital vein (MCV) was connected obliquely between the cephalic and basilic veins in an N-shape, while the median antebrachial vein (MAV) opened into the MCV in type I and into the basilic vein in type II. In type III, the MCV did not exist. In type IV, additional superficial veins above the cephalic and basilic veins were developed around the cubital fossa. In types Ib-IVb, the accessory cephalic vein was developed under the same conditions as seen in types Ia-IVa, respectively. The lateral cutaneous nerve of the forearm descended deeply along the cephalic vein in 124 cases (97 %), while the medial cutaneous nerve of the forearm descended superficially along the basilic vein in 94 (73 %). A superficial brachial artery was found in 27 cases (21 %) and passed deeply under the ulnar side of the MCV. A median superficial antebrachial artery was found in 1 case (1 %), which passed deeply under the ulnar side of the MCV and ran along the MAV. Venous valves were found at 239 points in 28 cases with superficial veins, with a single valve seen at 79 points (33 %) and double valves at 160 points (67 %). At the time of intravenous injection, caution is needed regarding the locations of cutaneous nerves, brachial



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and superficial brachial arteries, and venous valves. The area ranging from the middle segment of the MCV to the confluence between the MCV and cephalic vein appears to be a relatively safe venipuncture site.

