

Superficial veins of the cubital fossa. Anatomical, clinical and anthropological aspects [Venas superficiales de la fosa cubital. Aspectos anátomo-clínicos y antropológicos]

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Access of the cubital fossa to the superficial veins is very frequent, this being one of the most frequent vein puncture sites. Although it is a simple procedure, it is invasive and at times painful. The disposition of the superficial veins of the cubital area has been described by numerous authors and in diverse ethnic groups, describing many variations and various patterning. The superficial veins of the of the cubital fossa have been independently described, forming an M, N, Y or W. Numerous studies in different races and ethnic groups have demonstrated similarities and differences in the disposition of the superficial veins of the cubital fossa. In 1908 Berry & Newton determined that in 83% of British men the cephalic vein of the forearm (CVF) and the basilic vein of the forearm (BVF) were connected by the median cubital vein (MCV) Okamoto (1922) in Japanese men, determined 3 types of venous patterns. Type I where the CVF originates the MCV, the accessory cephalic vein (ACV) does not exist, and the (CVF) does not duplicate; Type II is characterized by the duplication of the CVF and a Type III, that includes the ACV which drains in the CVF. In white and black men Charles (1932) indicated that the most frequent distribution (nearly 70% of the cases), was that where the CVF and the BFV were connected by the MCV. Soller et al. (1962, 1964) in Africans from West Africa, distinguished three types of venous formations. Group I classic dispositions, types in M or apparent (38.1%) Groups II and III described as dispositions of the embryological type constitute 62% of the cases. Halim & Abdi (1974) observed 3 types in Hindus types: 1) Type I. The CVF and the BVF are connected by the MCV; Type II. The CVF drains in the BVF: the median vein of the forearm (MVF) drains in the CVF. Type III. There is no communication between the CVF and the BFV in the cubital fossa and it is subdivided in Types III A and III B. Wasfi et al. (1986) described 6 types of venous formations in Iraqis, indicating that two of them had not

been mentioned previously. The most common type was the division of the MVF in two veins, one of which joined to the BVF and the other to the CVF. Del Sol et al. (1988) classified the venous formations of the cubital fossa in 5 Types: I the CVF divides into median basilic vein (BMV) and median cephalic vein (MCV), joining the BVF and ACV respectively. Type II, the CVF originates vein MCV which joints BVA, ACV does not exist. Type III there is no communication between BVF and CVF at the level of the cubital fossa, Type IV the CVF drains in the BVF and the MVF drains in the CVF. Type V other dispositions, where the classic M is included which results from the MVF division. With respect to the diameter of the veins it appears to be the consensus that depending on the type of formation of the MVF and the MCB these are of the greater diameter. The use of the MCV is recommended when it presents a similar diameter to the MBV or the MCV since the risks of puncture to other anatomical structures, such as anterior branches of the medial cutaneous nerve of the forearm or brachial artery are minimal.

Anatomy

Cubital fossa

Vein puncture

Veins