

Morphometry of the sensitive nerves of the dorsum of the foot in man [Morfometría de los nervios sensitivos del dorso del pie en el hombre]

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The cutaneous innervation on the dorsum of the foot, is given by the superficial fibular nerves (SFN) a branch of the common fibular nerve: its branches, and cutaneous medial dorsal (MDCn) and cutaneous intermediate dorsal (IDCn). Also, the cutaneous lateral dorsal (LDCn) branch of the sural nerve and cutaneous branch of the deep fibular nerve (DFCBn). These can be injured in their proximity with osseous structures in their most superficial location, in surgical procedures, by compression, traction or chronic friction. We carried out a morphometric and stereological study in 5 samples of SFN, MDCn, IDCn, LDCn and DFCBn in cadavers of adult male individuals. Transverse sections of each of the nerves were obtained following its origin, at the level of the distal third of the leg and dorsum of the foot. We realized slices of 4 μ m thick, stained with H.E. The average of the fascicles was: SFN 12 (D. E. 2.39); MDCn 8 (D. E. 4.82); IDCn 5 (D. E. 1.67); LDCn 7 (D. E. 3.27) and DFCBn 4 (D. E. 1.30). The average of fibers for SFN, MDCn, IDCn, LDCn, and DFCBn was: 14.080, 7.636, 4.602, 3.732 y 2.941 respectively. Average area of SFN, MDCn, IDCn, LDCn, and DFCBn was 1.54 mm² (D. E. 0.22), 0.82 mm² (D. E. 0.31), 0.54 mm² (D. E. 0.23), 0.42 mm² (D. E. 0.19) y 0.32 mm² (D. E. 0.13) respectively. With this study we hope to contribute to morphological information in reference to factors that could influence in the degree of recovery of nerve lesions, important in clinic as well as microsurgery techniques.

Cutaneous branch of deep fibular nerve

Cutaneous intermediate dorsal nerve

Cutaneous lateral dorsal nerve

Cutaneous medial dorsal nerve

Morphometry

Superficial fibular nerve