DISTALLY BASED HEMISOLEOUS FLAP: CORRELATION BETWEEN CADAVERIC AND “IN VIVO” VASCULAR STUDIES


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Introduction: The success of this flap depends on the vascular anatomy of its pedicle and on the existence of anastomosis with proximal pedicles. The anatomic cadaveric vascular studies set the foundation for muscle flap designs. Surgeons should know which results of cadaveric studies are applicable to the patient. Our objective was to study, in cadavers, the number and situation of distal pedicles to the soleous muscle and the existence of anastomosis between them and proximal dominant vessels for this muscle, and to compare this data with those found in patients. Material and Methods: The anatomy of distal pedicles was studied in nine cadaveric legs. Distally based hemisoleus flap was performed in five patients. The correspondence between cadaveric and patients data was verified. Results: Cadaveric group distal pedicles for soleus muscle were originated from the posterior tibial artery and also from the fibular artery. The most distal vessel was found at an average of 6.32 cm from the intermaleolar line. Its most frequent origin was the posterior tibial artery. The presence of anastomosis was demonstrated in patients but not in cadaveric dissections. Conclusions: Cadaveric results were comparable with those found in patients, except for the identification of the anastomosis. This information is useful for the localization and surgical approach of the distal pedicle that nourish the flap, but not to define the anatomical territory of the vessel. Therefore, it should be known which cadaveric data can be applied to the patients.


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