Anatomic variations of the gastrocnemius muscle

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The gastrocnemius is a lower limb muscle comprising a medial and lateral heads. The medial head is inserted into a depression located on the medial condyle of the femur, behind the adductor tubercle and above the articular surface of the medial condyle. The lateral head is inserted in a depression located in a post-lateral epicondyle and join the lateral supracondylar line of the femur. Distally is inserted into the tuberosity of the calcaneus joining the soleus muscle tendon, forming the calcaneal tendon. This paper has the objective to determine the characteristics and shapes of presentation of gastrocnemius muscle, to establish some basis for clinical-surgical practices and the subsequent pedagogical and didactic usage of the pieces. Forty (40) cadaver pieces from adult persons of both sex, were fixed with 10% formaldhyde and dissected. The instruments used were the classical ones for biometry and dissection, realized under optical magnification of 2x and 5x. The presentations were documented in focal and panoramic photos and registered. The data was analyzed by means of descriptive statistics. The classical variety is present in 21 pieces (52.5%), described by Rouvière and Testut. The results showed that the fifteen variety of presentation described by Macallister, in terms of their insertion proximal were found: - Three pieces (7.5%), in which a third head may arise from the medial supracondylar line, over the gastrocnemius muscle medial head. As for the distal insertion, we find: - Nine piece (22.5%), in which the gastrocnemius tendon joins the soleus muscle fleshy body in the middle third. - Five pieces (12.5%), in which the bottom third of the gastrocnemius lateral head joins the lower two third of the soleus muscle; - Two-pieces (5%), in which the tendon of gastrocnemius muscle joins the lower third of the soleus tendon. We conclude that the empirical data corroborate the classical descriptions and our objectives were obtained because we found some of the described varieties, in which clinical-surgical practices are based.

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