Selevtive neurectomy of the gastrocnemius and soleus muscles for calf hypertrophy: an anatomc study and 700 clinical cases

馮琮涵

Tsai FC;Mardini S;Fong TH;Kang JH;Chou CM

摘要

Abstract

BACKGROUND: Calf hypertrophy is of concern to Asians. Liposuction and muscle resection are used with reasonable results. A technique of selective neurectomy of the medial gastrocnemius and soleus muscles is used to improve results of calf reduction. METHODS: Between 1999 and 2006, 700 patients underwent neurectomy of the medial gastrocnemius and half of the soleus muscle without liposuction. Gait analysis was performed on six and electromyographic studies were performed on 20 patients. Preoperative circumference was 34.1 cm. An anatomical study was performed on seven cadaver limbs. All branches of the popliteal nerve were noted. RESULTS: Reduction in circumference was 2.67 cm at 14 months. Short-term disability was noted in 2.57 percent. Complications were noted in less than 5 percent. Dissatisfaction was noted in 4 percent (28 of 700 patients). Electromyography showed denervation of the medial gastrocnemius. Gait analysis revealed normal gait. Anatomical studies showed the nerve to the soleus had a medial and lateral branch (seven of seven). One twig of the medial branch of the soleus muscle pierced and innervated the medial gastrocnemius muscle (three of seven). CONCLUSION: Selective neurectomy can offer an effective method of reducing calf circumference and improving contour.