

Letter to the Editor

A Case of Referred Pain following a Pedicled Medial Gastrocnemius Muscle Flap

The Editor,

Sir,

There have been only a few reports in the literature describing sensory changes of the pedicle medial gastrocnemius muscle flap to cover soft tissue defects of the tibia (1). We would like to report an unusual case of eliciting a painful sensation deep in the calf by gentle stroking of a healed skin graft overlying a pedicled medial gastrocnemius muscle flap.

A 56-year-old gentleman sustained a Gustillo Grade IIIB fracture of the right proximal tibia after being involved in a motor-cycle accident. Unfortunately, following internal fixation of the fracture, he developed a wound infection and dehiscence. Adequate debridement left a soft-tissue defect of 12 x 3 cm with exposed bone and metalwork. The defect was reconstructed using a pedicled medial gastrocnemius muscle flap which was covered with a meshed split-skin graft (Fig.). The immediate postoperative course was uneventful.

When the patient was reviewed three months postoperatively, the wounds were completely healed but he complained of a painful sensation deep in the proximal right calf on stroking the skin over the flap. This sensation of pain was not reproduced by stroking the normal skin adjacent to the flap. There were no clinical features of deep vein thrombosis or cellulitis.

Although the functional outcome of the medial gastrocnemius flap has been satisfactory in most cases (2, 3), several sensory changes have been described (1) including hypoaesthesia involving the regions innervated by the superficial peroneal and the saphenous nerves and even total peroneal nerve palsy. Some have experienced pain in the donor area when weight-bearing (1).

This patient experienced a unique sensory change not previously described. It is of interest to note that the discomfort which the patient experienced was not at the site of the tactile stimulus but was perceived to arise from the donor site of the medial gastrocnemius muscle. In this context, this form of referred pain clearly fits the description of phantom pain since the pain was perceived at a site where the muscle no longer existed.

In summary, sensory alterations (involving hypoaesthesia, peroneal nerve palsy and a painful sensation at the donor site on weight-bearing) have been described following the use of the pedicle medial gastrocnemius flap to

cover soft tissue defects of the leg. We have described a case of a painful sensation arising from deep in the posterior calf (the donor site) after gentle stroking of the skin overlying the flap. We believe that in this context, this may be regarded as a type of phantom pain. This sensory alteration following a pedicled medial gastrocnemius muscle flap has not previously been reported.



Fig: The appearance of the flap with its overlying split-thickness skin graft three months postoperatively

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