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عنوان البحث :-

## **Evaluation of distally based fasciocutaneous sural flap for reconstruction of the distal leg, ankle and proximal foot**

### Abstract

Objective: The objective of the study is to evaluate the efficacy of reverse sural artery fasciocutaneous flap for coverage of lower third leg, posterior heel, malleoli and hind foot

Study design: This is a descriptive study, which was conducted on 31 patients who presented with soft tissue defects in the area of lower third leg, heel, malleoli and hind foot.

Place and duration of study: The study was conducted at two centers Duhok hospital of plastic and reconstructive surgery, and Sulaimany plastic and reconstructive surgery hospital, over a period of 4 years from February 2009 to February 2012

Patients and methods: Over a period of 4 years, a total of 31 patients with Soft tissue defect of lower third leg, heel, malleoli and hind foot were included. Preoperative data, the age and sex of each patient, cause and site of defect, dimension of flap, transposition of pedicle (through a tunnel or laid open and covered with a skin graft), postoperative results and complications were recorded. All patients were followed up in our patient department for 12 months.

Results: Over a period of 4 years during February 2009 to February 2012, a total of 31 flaps were performed in 31 patients. Sixteenth patients were male and 15 were female. Their ages ranged from 8 to 55 years with a mean age of 31 years. There were three children. Road traffic accidents was the cause of the defects in 19 (61.2%) patients, DM in 5 (15.5%) patients, bullet injuries in three (9.6%) patients, Achilles tendon injuries in two patients (6.4%) patients, Malignant melanoma in one (3.2%) patient and foot amputation stumps in one (3.2%) patient.

The dimension of flap ranged from 5 to 15 cm in length and 4 to 12 cm in width. Postoperatively 20 flaps survived completely while marginal necrosis was seen in 7 patients and infection in 1 patient. The complete flap necrosis occurred in 2 patients. There was no considerable morbidity at donor site and all patients had satisfactory functional outcome.

Conclusions: The distally based superficial sural artery flap is a versatile, reliable procedure, useful in reconstruction of lower third leg, heel, and malleoli and hind foot defects. The surgical technique is safe, of short duration and provides alternative to microsurgical reconstruction. Some patients were not completely satisfied with their results mainly due to bulky flap that needed revision or due to Paresthesia in a noticeable area.