

Original Paper

Reconstruction of soft tissue defects in leg open fractures

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Abstract

Background and Objective: Open fractures mostly appear in leg (24%), and often accompany with soft tissue defects that predispose the limb for amputation. One of the best ways for limb salvage is to support both bone and soft tissue by the means of soft tissue reconstructing surgeries. The aim of this study was to evaluate the outcomes of soft tissue reconstruction surgeries in legs open fractures.

Materials and Methods: This descriptive study was performed on 59 patients with leg open fractures and soft tissue reconstruction surgery at Shahid Kamyab hospital in Mashhad, North-East of Iran during 2004-05. Individual characteristic, clinical and physical examination, and outcome of the surgery were gathered in a questionnaire and analyzed by descriptive and Chi-Square test.

Results: Eight patients excluded and finally the study was done of 51 patients. Out of 51 patients 84.3% were male with mean age of 30 years. Leg open fractures in 76.5% of patients was IIIB type. Surgery was successful in 76.5% of patients. Delayed union occurred in 56.9% and osteomyelitis in 33.13% of patients. There was a correlation between the time of soft tissue reconstruction and union, deep infection and osteomyelitis ($P < 0.05$).

Conclusion: This study showed that high frequency of deep infection, osteomyelitis and delayed union due to leg open fractures with lack of soft tissue.

Keywords: Open fracture, Soft tissue reconstruction, Delayed union, Osteomyelitis

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