CLINICAL OUTCOME OF INFECTED TIBIAL NONUNION TREATED WITH ILIZAROV EXTERNAL FIXATOR: TWO-CENTER EXPERIENCE

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ABSTRACT

Introduction: Common complication for tibia fractures due to infection is delayed union or non-union. The Ilizarov external fixator application is preferred because it is minimally invasive, correct the deformities and able to close the bone defect. The objective of this study is to evaluate the clinical and functional outcome in tibial non-union treated with Ilizarov external fixator.

Materials and Methods: A retrospective cross-sectional study was carried out from October 2015 to October 2019. Total of forty patients with tibial non-union associated with infection who treated with the Ilizarov fixator were included in the study. Patient records and radiographs were reviewed for union of bone, functional outcomes and complications. The functional outcome of the affected limb was assessed using LEFS scoring and ASAMI grading system.

Results: All patients had achieved union except two. Thirty-six (83.0%) patients had excellent and good score for bone and functional results respectively. In terms of employment, 33(82.5%) patients were able to return to their work. The most common complication noted was pin track infections which occurred in 12 (30%) patients.

Conclusion: Ilizarov bone transport technique is an effective salvage tool in obtaining union among patients with infected tibial non-union associated with bone loss. The functional outcome is good and most of our patients (82.5%) are able to perform their daily activity after completion of their treatment.

Keywords: Fracture, osteomyelitis, Ilizarov technique, lower extremity