Functional and Radiological Outcome of Open Floating Knee Injuries Treated by Surgical Management-Prospective Studies

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Abstract: Functional and radiological outcome of floating knees were studied over 24 months and the results were studied.

Keywords: Floating Knees, Tibia Fibula Fractures

1. Introduction
Road traffic accidents of high energy violence are becoming more common resulting in simultaneous femur and tibia fracture in the same extremity, also known as floating knee injuries (Mcbride.A.Mjr and Blake.R). High risk of complication and functional disability is inherent to this injury complex. Treatments of floating knee injuries pose a therapeutic challenge often complicated by concomitant multi system injuries.

2. Aim
This study evaluates the functional and radiological outcome of open floating knee injuries treated by surgery.

3. Materials and Methods
We prospectively analyzed 56 patients with open floating knee injuries between June 2013 till October 2015 and assessed the outcome of surgical management of these patients. We excluded patients who succumbed to other injuries resulting in death within 48 hours and patients who lost during follow up. We had 50 patients who completed the follow-up of 28 months. We had 48 male and 2 female patients with a mean age of 34 years and 36 patients of this study group having right sided injuries. All the patients in our study were victims of high velocity injury with a average time of arrival within 3.4 hours after the initial hemodynamic stabilization the patients were classified as per Gustilo and Anderson ( Grade I – 6, Grade II – 18, Grade III – 28, Grade III C – 24) and Fraser classification (Type I – 22, Type II – 28).

4. Results
Were analyzed using Karlstrom criteria which showed 22 patients (44%) good to excellent and 28 (56%) had average to poor result.

5. Discussion
Ipsilateral open fracture of femur and tibia are serious injuries often associated with poor treatment outcome. The present series analyses the outcome of operative treatment in 50 such patients. For ease of analyses of our patients, we sub classified the patients into 3 groups based on the definitive fixation. Majority of the patient in our study belonged to group I(internal fixation for both fractures (54%) and had excellent to good functional results. Complication in our study was restricted to the complex intraarticular fractures.

6. Conclusion
Early mobilization of multiply injured patients and their limbs is imperative in order to avoid complications and achieve better functional outcome. Internal fixation of both fractures at the earliest gives the best results.