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A case of pilon fracture operated with various modalities

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Abstract

A 20-year-old male presented to the Orthopaedics OPD with complains of pain and swelling over right leg since 1 day. History of trauma 1 day back. On examination Tenderness over Right leg. Laceration of size 4*1cm over Right leg. No neurovascular deficit was noted

Keywords: OPD, Pilon, Distal Tibia

Introduction

First described by French radiologist Destot in 1911, pilon fractures are defined as injuries that involve the articular weight-bearing surface of the distal tibia. (1) The term "pilon" is derived from the French language, meaning pestle, resembling a pharmacist's pestle when paralleled to the distal tibial metaphysis. These injuries compile <1% of all lower extremity fractures. Compared to the fractures described Pilon fractures are high energy mechanisms that often involve substantial articular impaction and severe soft tissue injury due to axial load(2-4).Even after multiple surgeries complications in post operative period such as infection, wound dehiscence, non-union, malunion.(4)

Discussion

Pilon fractures with open wound are high energy fractures which needs immediate intervention. (2) In our case patient presented with open wound It is clear that there are advantages and disadvantages to each treatment. The authors sought to establish clear guidelines for the use of both of these techniques in terms of the preoperative condition of the soft tissue and in the fracture classification. Traditional plating techniques were used on all patients with Tscherne Grade 0 and Grade 1 injuries, and external fixation techniques were performed for all patients with Tscherne Grades II, III, and open fracture types. The patients who were treated with internal fixation had 75% good to excellent results overall with 60% good to excellent results achieved in the patients with the most severe Type C fractures. These results are comparable with the results of Tornetta et al[5] using hybrid techniques and are thought to be superior to the results reported for patients with Ruedi Type III fractures.[4,5] However, it must be assumed that many of those fractures in the aforementioned series[4,5] were involved with severe soft tissue compromise and skeletal injury. All complications occurred in patients with Type C fractures.

Because of the increased incidence of bony and soft tissue complications when treating open or closed Type C injuries, external fixation is recommended for most patients with these injuries. Although internal fixation still is the treatment of choice for patients with Type A and Type B fractures presenting with a low-grade soft

tissue injury, the current results show clinical results equal to, if not better than, current studies for external fixation and internal fixation techniques. In addition, soft tissue related complications are markedly decreased when using these external fixation techniques, even for patients with severe fracture types. Based on the current study, the surgeon should understand that the severity of the soft tissue injury cannot be separated from the degree of skeletal involvement, but rather should be combined to give the surgeon the overall injury pattern. It is this injury pattern that is most significant in predicting the clinical results. Although the articular reduction is important, the surgeon should try to limit soft tissue damage and avoid additional complications at the risk of achieving a less than anatomic joint, which may result in a good functional outcome for the patient.

Result

At 4 Months follow-up of the patient, the patient showed improvement in ankle toe range of movements. After 3 months patient was operated with definitive fixation by ORIF with Plating and later 1 month patient was advised with full weight bearing walking.

Conclusion

Due to poor blood supply of distal shank and soft tissue coverage, it is prone to skin necrosis and nonunion post injury.

Previous evidences suggestive of low union rates, high chances of malunion and arthritis in pilon fracture. Patient was advised with regular follow ups. Since our case was further complicated due to its compound nature, but timely intervention, meticulous dissection and step by step patient approach lead us to good functional and radiological outcome and our patient returned to his activities of daily life.

References

1. CM Court-Brown S Rimmer U Prakash MM McQueen The epidemiology of open long bone fracturesInjury199829752934
2. TP Ruedi M All Gower Fractures of the lower end of the tibia into the ankle jointInjury196912929
3. BN Moller B Krebs Intra-articular fractures of the distal tibia Acta Orthop Scand19825369916
4. MA McFerrin SW Smith HJ Boulas HS Schwartz Complications encountered in the treatment of pilon fractures Orthop Trauma199262195200
5. T Ruedi Fractures of the lower end of the tibia into the ankle joint: results 9 years after open reduction and internal fixationInjury197352130134
6. TP Ruedi M All Gower The operative treatment of intra-articular fractures of the lower end of the tibia Clin Orthop197913810515