

Management Of Bilateral Tongue-Typed Calcaneal Fracture; An Ongoing Dilemma

¹Mardi M, ¹Naadira FM, ¹Imma I

¹Orthopedic Department, Hospital Serdang, Jalan Puchong, 43000 Kajang, Selangor

INTRODUCTION:

Calcaneal fracture occurs commonly due to fall from height. We report a case of bilateral tongue-typed calcaneal fracture that was fixed surgically and its difficulty in managing the post-operative complication.

CASE PRESENTATION:

A 28-year old male allegedly fall from 6 meters height and sustained pain and swelling over bilateral heel. There was no wound on the right heel, however blister formed over the left heel. Plain radiograph showed bilateral tongue-typed calcaneal fracture. Patient underwent bilateral calcaneal screw fixation 1 week later, after blister over the left heel resolved. 2 months later, patient developed surgical site infection over the left heel where the calcaneal screws was removed surgically. 3 months post fixation, union of both calcaneal fractures was achieved.

DISCUSSIONS:

Calcaneal fractures are the most common tarsal fracture. Essex-Lopresti classification divides it into 2 types, Type I: depression-type fracture and Type II: tongue-type fracture¹. Tongue-type fractures can be extra-articular or intra-articular, but both require surgical intervention. Displacement of fracture fragment is adamant as the pull from the Achilles may resort in non-union. Its other complication is the disruption of posterior soft tissue due to the constant pull.

In the case reported, pre-operatively there was no wound over the right heel thus union was achieved well. Signs of skin disruptions however were noticed over the left heel, and despite it being resolved prior to the surgery, surgical site infection still occurred. There is still lack in current literature to establish the proper timing of surgery and post-operative care of tongue-type fracture with wound breakdown.

CONCLUSION:

In conclusion, bilateral tongue-typed calcaneal fracture needs surgical fixation to ensure union. However there is no guarantee as to avoid risk of wound breakdown post-operatively despite proper pre-operative planning.

Figure 1: Day 11 post fall

Figure 2: 3 months post fixation



Figure 1



Figure 2

REFERENCES:

1. Essex-Lopresti P. The mechanism, reduction technique and results in fractures of the os calcis. *Br J Surg.* 1952 Mar; 39(157): 395-419.