

**Title:** ORIF of acute intra-articular displaced calcaneal fractures: A retrospective analysis of surgical timing and infection rates

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**Abstract:**

Introduction: The choice of surgical timing in open reduction for calcaneal fractures has been proposed to be associated with soft tissue complications and infection. This study analyzed the correlation between surgical timing and infection rates. We performed a retrospective single-surgeon single-facility study between Jan 2006 and Jan 2010. 50 patients with 53 intra-articular calcaneal fractures were included. They received open reduction internal fixation via extensile lateral L-shaped approach.

Methods: We assessed the duration between heel trauma and operation from the medical records and sorted our patients into early (within 3 days), intermediate (from 3 to 10 days) and delayed (over 10 days) surgical groups. The mean follow-up period was 13 months.

Results: Only one of the 50 patients, a 74-year-old female with diabetes mellitus, developed deep infection requiring hardware removal and debridement. Overall, we did not find a statistical difference in postoperative infection rates in the different timing groups.

Conclusion: Our conclusion is that in experienced hands, surgical timing may not affect postoperative infection rates in calcaneal fracture among strictly selected patients who do not have potential risk factors for wound complication. Therefore, early operation may be helpful to these patients.