

# **Closed Reduction and Internal Fixation for Acute Midshaft Clavicular Fractures Using Cannulated Screws**

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摘要

## **Abstract**

**BACKGROUND:** Although most acute midshaft clavicular fractures can be successfully treated nonsurgically, surgery is more appropriate for cases with severe displaced fractures, skin tenting, initial shortening of fracture ends, and associated with multiple injuries.

However, methods of surgical treatment for such fractures remain controversial. This study discusses a closed reduction and internal fixation technique for midshaft clavicular fracture.

**METHODS:** Between 2000 through 2003, 34 acute midshaft clavicular fractures were operatively treated with cannulated screws using closed reduction technique by one surgeon. The follow-up and clinical evaluation was performed by another surgeon.

**RESULTS:** Thirty-one patients were followed for an average of 27.4 months (range, 24-37 months). Thirty (96.8%) fractures healed within 12 weeks, and one fracture healed at 18 weeks. No major surgical complications occurred, although superficial wound infection occurred in one patient. No implants needed to be removed. The final union rate was 100%.

**CONCLUSIONS:** Closed reduction and internal fixation with cannulated screw is an alternative choice for treating acute midshaft clavicular fracture in selected cases where surgery is indicated and should be done cautiously.