✚ Evidence in focus

Publication summary: Dang KH, et al. *Injury* (2019)*

Smith+Nephew

Low hardware failure rate with the EVOS◊ MINI Plating System for pilon fracture fixation

✚ Plus points

91.9%
Free of hardware failure

83.8%
Reoperation not required

94.6%
No medical complications

Overview

- Retrospective, single-centre case series evaluating the safety and effectiveness of the EVOS MINI Plating System for pilon fracture fixation
- 37 patients with injuries from high energy mechanisms (37 fractures) had a mean age of 38.4 years and relatively high rates of obesity (45.9%) and tobacco use (48.6%)
- Primary outcome: mechanical hardware failure at a mean follow-up of 299 days
- Secondary outcomes included: reoperation rates and medical complications

Results

- Treatment success without hardware failure in 34/37 patients (91.9%)
- Reoperation was required for 6/37 patients (16.2%; Table)
- Medical complications occurred in 2/37 patients (5.4%):
  - Acute renal failure in the setting of end stage renal disease (n=1)
  - Thrombophlembitis at the intravenous site (n=1)

Table. Reason for reoperation following pilon fracture fixation with the EVOS MINI Plating System

Reason for reoperation	Patients, n (%)
Infection	2 (5.4%)
Non-union repair	2 (5.4%)
Mal-union repair	1 (2.7%)
Symptomatic hardware removal	1 (2.7%)

Conclusions

Early clinical results of the EVOS MINI Plating System demonstrate safety and effectiveness, with low mechanical failure, reoperation and complication rates.

Citation

*Dang KH, Ornell SS, Huynh RA, DeLeon JC, Pesek R, Karia RA. Early clinical and radiographic outcomes of a mini-fragment, low profile plating system in tibial plafond fractures. *Injury*. 2019 Jul 23. [Epub ahead of print] Available at: Injury

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