**Review: Evidence on surgical interventions for distal radial fractures is inconclusive**


**Question**

In adults with fractures of the distal radius, is surgical treatment effective for improving clinical outcome?

**Data Sources**

Studies were identified by searching 6 databases; hand searching conference proceedings; and scanning reference lists.

**Study Selection**

Randomized or quasirandomized controlled trials were selected if they compared surgical interventions with conservative interventions or other surgical interventions in adults with fracture of the distal radius.

**Data Extraction**

Data were extracted on patient characteristics, intervention, and outcomes (including functional and anatomic outcomes and complications). The quality of studies was assessed.

**Main Results**

44 studies (3193 mainly female and older patients with 3197 fractures) with 23 different comparisons met the selection criteria, with follow-up ranging from 6 weeks to 10 years. Summarizing the outcomes was impeded by the poor quality and variation in study methods, interventions, patient characteristics, and outcomes. Some anatomic and functional outcomes (Table) were better in the external-fixation group (7 studies), the pins-through-fracture group (4 studies), and the bone-scaffolding group (2 studies) than in the plaster-cast group, differences in function for open reduction and internal fixation or bone graft or substitute relative to plaster cast are not reported here because studies had excessive losses to follow-up or results were no longer significant when the random-effects model was used. External fixation and percutaneous pinning led to fewer patients with redisplacement that required secondary treatment than did a plaster cast; external fixation led to more patients with pin-track infection than did a plaster cast (Table). The evidence did not show clear superiority for 1 surgical intervention over another.

**Conclusions**

In patients with distal radial fractures, heterogeneity exists for patients, mechanism of fracture, and fracture type, and results are inconsistent. Some benefit in reduced deformity, reduced malunion, and better functional outcome is seen for external fixation and percutaneous pinning relative to plaster cast, but who will benefit sufficiently is unclear.

**References**