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Best Approach to Treating Distal Radius Fractures

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**Background Information:** Distal Radius Fractures (wrist) are commonly caused by falling on an outstretched hand. The two treatments for distal radius fractures are surgical intervention through Open Reduction Internal Fixation (ORIF) or conservative non-surgical treatment. The ORIF surgery includes reducing the broken bone and then setting it back in place with screws, plates, rods or pins. Conservative treatment includes casting or immobilization of the wrist in order to promote natural healing.

1. **Ask: Research Question**
   What approach to treatment (ORIF vs Conservative treatment) proves most effective in functional outcomes for distal radius fractures?

2. **Acquire: Search Terms**
   **Databases:** Proquest, Google Scholar, Scopus, Pubmed
   **Search Terms:** ORIF, Distal Radius Fracture, Colles Fracture, Occupational Therapy, Outcomes, Distal Radius Fracture Treatment, Mnh, Conservative Treatment

3. **Appraise: Study Quality**
   **Patient/Client groups:** Distal Radius Fracture
   **Intervention:** Conservative Treatment
   **Comparison:** Surgical Intervention through ORIF
   **Outcome:** Functionality

4. **Apply: Conclusions for Practice**
   Research related to functional outcomes for optimal treatment for distal radius fractures are mixed. Results more likely to be dependent on key factors, namely: age, severity of injury, comorbidities, etc. Radiological improvements more likely to be observed in ORIF treatment. Improvements in quality of life more likely resulted from conservative treatment. Efforts understanding outcomes related to distal radius fractures have been primarily limited to orthopedic and other medical journals.

Ocational therapy and other allied health have been less likely to explore functional outcomes related to this type of injury. Given 50,000 (Nelson, 2018) cases of distal radius fractures reported in the US per year, this area of research is in need of greater attention to its relationship to functional performance.

**References**

**Conservative Treatment Outcomes, Distal Radius Fracture Treatment, Mnh, Occupational Therapy, Search Terms:**

**Databases:** Proquest, Google Scholar, Scopus, Pubmed

**Search Terms:** ORIF, Distal Radius Fracture, Colles Fracture, Occupational Therapy, Outcomes, Distal Radius Fracture Treatment, Mnh, Conservative Treatment

**Appraise: Study Results**

**Barai, Lambie, Cosgrove & Baxter (2018):** Evidence provided lower DASH scores for the conservative management group signifying better functional outcomes. An increase of age correlates with an increase in DASH scores.

**Ju, Jin, Li, Hu & Hou (2015):** Level I study. Utilizes a large sample size with ORIF (n=440) and conservative groups (n=449). Eight studies reviewed to address functional and radiological outcomes. Primary outcome measures included the DASH and Visual Analog Scales (VAS). Secondary outcome measures included functional & radiological assessments.

**Sharma et al. (2014):** Level II study. Study provides small sample size (n=64) with equal number of participants in each group. Participants assessed at 3, 6, 12, 18, & 24 months to determine long-term results. Outcomes measured by range of motion (ROM), grip strength, functional outcome scores, & radiological parameters.

**Conclusion:**

Conservative treatment includes casting or immobilization of the wrist in order to promote natural healing. ORIF treatment resulted in radiological improvements, while conservative treatment improved quality of life.

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