Patient-perceived outcome after conservative treatment of distal radius fracture in elderly patients: Comparison according to radiologic outcome

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Introduction

Distal radius fracture: very common and is fragility fracture in elderly patients with osteoporosis.

Stable fracture could be treated conservatively with cast immobilization.

Radiologic outcome is clearly co-related with functional outcome in younger patients.

The old age is one of factors which increase the risk of reduction loss during conservative management.

However, functional outcome is not inferior in malunited patients with old ages in many studies.

Study Objectives

➢ What’s the patient’s perceived outcome such as satisfaction after cast treatment in long-term?
➢ Comparison between patients with acceptable alignment and patients with mal-union

Methods and Materials

➢ Patients older than 55 years old
➢ Conservative treatment of distal radius fracture with cast immobilization
➢ Single institution (Samsung Medical Center) from 2000 to 2010

426 • Follow-up loss before 3 month: 90
336 • Exclusion (no X-ray on injury date, bilateral, concomitant fracture, tendon injury, abnormal wrist, prior surgery, intra-articular step off, widely non-displaced): 55
281 • Failed final survey: 114
167 • Final analysis

Figure 1. Patients selection

Table 1. Characteristics of patients

<table>
<thead>
<tr>
<th>Criteria</th>
<th>Mal-union</th>
<th>Acceptable Alignment (AA)</th>
<th>P-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Patient (%)</td>
<td>51 (30%)</td>
<td>116 (70%)</td>
<td>&lt;0.001</td>
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<tr>
<td>Mean age (yr)</td>
<td>69.6</td>
<td>62.9</td>
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<tr>
<td>Female (%)</td>
<td>90%</td>
<td>85%</td>
<td>0.465</td>
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<tr>
<td>Duration of follow-up (yr)</td>
<td>7.2</td>
<td>7.0</td>
<td>0.993</td>
</tr>
</tbody>
</table>

Results

Radiologic

Pain VAS

DASH

Gross deformity (%)

Overall Satisfaction VAS

Satisfaction VAS for shape

I would choose surgery more than cast if I encounter same condition: 13.3% versus 7.2% (P = 0.2332)

The subset of patients with older age (>70 years) or relatively younger age (55 ~ 70 years old) shows similar trend with the whole set of patients.

Conclusions

➢ Elderly patients with conservative treatment: Good functional and patient-perceived outcome
➢ However, slightly less satisfaction in Malunited patients
➢ Further study will be required for adequate selection of patients who need operation

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