Objective Functional Outcomes and Patient Satisfaction
After fasciectomy for Dupuytren’s contracture
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Background
Patient satisfaction is an essential measure of quality of care for Dupuytren’s contracture. Previous research demonstrated that patient satisfaction improves after fasciectomy for Dupuytren’s contracture. However, the relationship between functional recovery and satisfaction is not clear.

Objective
The purpose of this study is to reveal the correlation between functional recovery and patient satisfaction after surgery.

Patients and Methods
We observed 21 patients with 26 hands who had fasciectomy from 2007 to 2016.

- Sex: Male 20, Female 1
- Age: 67.7 years
- Disease duration: 10.3 years
- Follow up periods: 5.6 years
- Operated fingers: Index 1, Ring 5, Little 22
- Bilateral disease: 8
- Family history: Yes 4, No 16, Unknown 6
- Diabetes: Yes 7, No 13, Unknown 6
- Meyerding classification:
  - Grade 0: 0
  - Grade I: 3
  - Grade II: 4
  - Grade III: 19
  - Grade IV: 0
- Incision type:
  - Zig-zag incision: 12
  - Longitudinal incision with Z-plasty: 14

We examined items as follows.

- **Range of Motion (total extension deficit, TED)**
- **Grip Strength**
- **Disabilities of the Arm, Shoulder, and Hand (DASH) scores**
- **Pain (Visual Analogue Scale, VAS: 0-10)**
- **Cosmetics (VAS)**
- **Satisfaction with hand function**
- **Complications**

We used Spearman coefficients to determine the correlation between objective measures of function and patient satisfaction. We also constructed receiver operating characteristic curves to identify optimal cutoffs in hand function that correspond with patient satisfaction.

Results

<table>
<thead>
<tr>
<th>Post-op Pain (VAS)</th>
<th>Post-op Cosmetics (VAS)</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.1</td>
<td>1.0</td>
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</tbody>
</table>

**Satisfaction**

- Very satisfied: 15
- Quite satisfied: 5
- Somewhat satisfied: 1

- TED after surgery was correlated with patient satisfaction.
  - r = 0.52 (P < 0.05, Spearman coefficients)
- TED of 40° after surgery corresponded with very good satisfaction.
  (sensitivity: 67%, specificity: 85%)
- Other factors including grip strength, DASH, pain, and cosmetics were not correlated with postoperative patient satisfaction.

**Comparison between Two Skin Incisions**

<table>
<thead>
<tr>
<th>Zig-zag incision</th>
<th>Longitudinal incision with Z-plasty</th>
</tr>
</thead>
<tbody>
<tr>
<td>TED after surgery: 27.8</td>
<td>21.2</td>
</tr>
<tr>
<td>Grip strength: 39.8</td>
<td>35</td>
</tr>
<tr>
<td>DASH: 1.5</td>
<td>1.2</td>
</tr>
</tbody>
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There are no differences between them. Mann-Whitney U test * P < 0.05

**Complications**

- There was one case that took a re-operation due to recurrence of contracture.
- There were no cases with infection, neurovascular injuries, nor skin necrosis.

Discussion

- The degree of residual contracture at follow-up for PIP joints in the collagenase group was significantly worse compared with those in the fasciectomy group.
- At 6 months, 32% considered hand function as fully recovered, and 73% were satisfied with their hand function.
- Sixty-six percent hands had excellent results, 23% had good results and 9% had fair results.
  Aykut S et al. Acta Ortop Bras. 2017

In this study, 48% achieved normal ROM, and 94% were very or quite satisfied.

These outcomes show fasciectomy can get good outcomes for mild to severe Dupuytren’s contracture.

Conclusions

- Hand function was improved after fasciectomy.
- Most patients were satisfied with hand function and appearance.
- TED corresponded with patient satisfaction in the postoperative period.