Jersey Finger

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Forces and sutures resistance

Forces applied during movement

<table>
<thead>
<tr>
<th>Movement</th>
<th>strength</th>
</tr>
</thead>
<tbody>
<tr>
<td>Passive wrist movement</td>
<td>0.9 to 5.9N</td>
</tr>
<tr>
<td>Passive finger movement</td>
<td>0.9 to 8.8N</td>
</tr>
<tr>
<td>Activ wrist movement</td>
<td>4N</td>
</tr>
<tr>
<td>Activ finger movement</td>
<td>10 to 34N</td>
</tr>
</tbody>
</table>

Tendon resistance after surgery

<table>
<thead>
<tr>
<th>Surgery</th>
<th>strength</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pull-out button</td>
<td>43N</td>
</tr>
<tr>
<td>1.8mm Mini anchor</td>
<td>44N</td>
</tr>
<tr>
<td>Dual 1.3mm Micro suture anchor</td>
<td>70N</td>
</tr>
</tbody>
</table>

Safe when resistance >35N

Resistance? → surgical opinion

Variability over time!
-50% week 1
-33% week 3
+20% end of week 6
• Work of Flexion (WOF)

- Oedema
- Hematoma
- Adherences
- Suture
- Extreme amplitude
- Movement speed
- Soft tissue
- Joint position
• What type/category of rehabilitation?
• Immobilization

- Wrist 30° flexion, MCP 60-80°, IPs straight
- 6 weeks
- Work against resistance after 2 months

- No immediate risk
- To be used for:
  - patients unable to cooperate
  - young children
  - trauma with associated lesions requiring immobilization

- But...
• Advantage of early passive mobilization

- Oedema

- Increase and reorientation of the vascularization

- Collagen fibers orientation

- Acceleration of cellular maturation of the tendon

- 2x increase resistance to rupture at 3 weeks versus immobile

- Less adherences
• Advantage of early active mobilization

- Oedema
- Motor image
- Increase of synovial diffusion favoring intrinsic healing
- Increase resistance to rupture +++
- Adherences
• Good to know

- 3-5 days delay
- Fight against oedema asap
- Delayed healing depending of vincula status
- Trauma violence
- Tenodesis effect
- Retinacular ligament
• conclusion

Tailored therapy: stick to one method or adapt?

Importance of self exercise

Growth factors?

Studies difficult to compare (Many evaluation protocols!)

Active mobilization asap
Thank you for your attention!