Primary goal: Minimize lifetime morbidity from both Dupuytren and its treatment

What do patients want?

- Questions:
  - Will it get worse? (maybe not, but probably)
  - Doesn’t surgery just make it worse? (usually not)
  - What can I do to keep it from getting worse? (nothing yet)
  - What can I do to keep it from coming back? (nothing yet)

- Motivations
  - Early in disease:
    - Want normal
    - Internet fueled catastrophic thinking common
    - Avoid risk or be proactive? (choose one)
  - Late in disease:
    - Want better: “If I could straighten it enough to be able to...”
    - Willingness to have more treatment varies greatly
  - Short term goals: specific
    - Tolerable procedure
    - Quick recovery
    - Dexterity for specific tasks
  - Long term goals: more general
    - Not looking crippled
    - Not becoming crippled
    - Not losing flexion, feeling or fingers
What do surgeons want?

- **Questions**
  - How do I avoid post-fasciectomy flare/RSD? (loose dressings, treat CTS)
  - Should diathesis alter treatment? (not if you won’t do dermofasciectomy)
  - What’s best for the *terrible Dup* hand? (be realistic; review salvage options)
  - How can I better predict who won’t do well? (> 2 digits; PIP > 60°; Ray > 90°)

- **Motivations**
  - Best interest of the patient
  - Personal skill/comfort as a technician
  - Personal comfort creating complications
  - Logistics / reimbursement

How is everything going today in Dupuytren care?

- **Short term**: pretty well: new/shiny minimally invasive options
  - “I’d rather do this every year than that every ten years”
  - Doctor-shopping more common
  - Some patients still miss the window for a good result

- **Long term**: change without progress
  - We treat *without understanding or treating the biology*, which involves Wnt signaling, regulation of focal adhesions, and deposition of ECM
  - ROM doesn’t correlate well with satisfaction
  - Many patients unaware of minor recurrence/extension
  - Some patients have inexplicably good long term results
  - Some patients are inexplicably satisfied with bad hands
  - Patient satisfaction is dynamic; drops with recontracture
  - Choice of procedure based more on gut rather than data
    - Case-report mentality
    - Marketing influence
    - Overtreatment or therapeutic nihilism? (choose one)
  - Serious complications of fasciectomy 4 X other elective hand procedures
  - Failed Dupuytren surgery most common reason for elective amputation
  - No improvement in long-term outcomes last 50 years

What considerations should influence recommendations?

- **First procedure**
  - Patient Preference
  - Surgeon Preference
  - Biology
    - Diathesis factors (If severe, consider primary dermofasciectomy)
    - Anesthetic risk (Too risky for fasciectomy = too risky to treat complications)
  - Anatomy
    - Dupuytren
      - Palpable cord (No cord? No procedure.)
Nodular skin involvement (↑ recontracture risk)
Number of joints and digits (↑ risk incomplete correction)
Composite ray > 90° (↑ risk incomplete correction)

Secondary pathoanatomy
Skin reserve (be ready to graft)
Flexor sheath shortening (plan incision for skin to cover release site)
PIP > 40° (gentle stretch vs. Digit Widget®; avoid open release)
Boutonniere (DIP fusion lasts longer than tenotomy)
Sagittal band rupture (fix at same setting)

Comorbid booby traps
Carpal tunnel (treat)
Trigger finger (preserve A1 as for rheumatoid or risk bowstringing)
Prior tendon or skeletal injury (ask)
Undiagnosed mild spasticity (evaluate)
Undiagnosed peripheral neuropathy (evaluate)
Undiagnosed ulnar neuropathy (evaluate)
Severe contracture: central reorganization/disuse (evaluate)

Postop logistics
Self-care arrangements
Out-of-town arrangements

Next Procedures
Considerations as above
Prior treatment
Technical details
Early recovery details
Timeline of recurrence/extension
Redo fasciectomy? Microscope on standby.

Procedure Choices
Minimal: dealer’s choice, similar results
- Xiaflex®/Xiapex®
- Needle Fasciotomy
Standard: dealer’s choice; better correction than minimal for ray > 90°
- Limited fasciectomy
- Regional Fasciectomy
Staged: consider for ray > 135° or PIP > 75°
- Digit Widget® then procedure
- Minimal then procedure
- Fasciectomy then DIP fusion for boutonniere

Combined / same setting:
- Fasciectomy and carpal tunnel release (it’s OK, really.)
- Fasciectomy and tendon procedure (e.g. sagittal band reconstruction)
- Fasciectomy and skin graft gap (for skin shortage without diathesis)
- Dermofasciectomy and functional unit skin replacement (diathesis)
(Dermofasciectomy is not just fasciectomy + skin graft: read up!)

Dupuytren Treatment Decision Trees

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- Fasciectomy and biologic barrier implant (diathesis)
  - Salvage
    - PIP fusion (current standard for recurrent severe PIP)
    - Amputation (only if patient suggests it)
    - Middle phalangectomy (length same as PIP fusion for 90°, keep flexion arc)
    - Dorsal angulation osteotomy (sometimes accomplishes nothing)
    - PIP Joint replacement (requires good luck)

More materials at: https://dupuytrens.org/2017-asseh-symposium-7/

References


