Pseudo-Boutonniere Nonoperative Treatment

This protocol is intended to provide the clinician with a guideline for the rehabilitation course of a patient who has ***Pseudo-boutonniere***. General time frames are given for reference to the average, but individual patients will progress at different rates depending on their age, comorbidities, pre-surgical range of motion, strength, health/functional status, rehabilitation compliance, learning barriers and complications. Specific time frames, restrictions and precautions are given to protect healing tissues.

The term "pseudo-boutonniere" is used to classify a group of PIP hyperextension injuries that present with a boutonniere-like appearance. With the pseudo-boutonniere deformity, there is a PIP joint flexion contracture with the DIP joint positioned in extension. Although it looks like boutonniere injury (injury to extensor mechanism), the cause of pseudo-boutonniere deformity is because the volar plate volar plate (proximal attachment) has been avulsed with PIP scarring in the flexed posture. The central slip is intact.

Guidelines

First perform Elson's test to determine if the central slip is intact or not.

Elson's test:

- **Place PIPJ of involved finger in max flexion.**
- **Resist PIPJ extension**
- **If DIPJ is tightly in extension, the central slip is not intact**
- **If DIPJ is loosely in extension/slightly in flexion, central slip is intact.**

If intact, continue to assess below. If it is not intact, refer to boutonniere protocol and Hand Surgeon.

How to differentiate between Boutonniere & Pseudo-boutonniere

- Pseudo-boutonniere: when PIP is extended, DIP can passively flex
- Boutonniere deformity, passive flexion of the DIP joint is not possible because the oblique retinacular ligament is tight.

Testing for Pseudo-Boutonniere (Boyes' Test)

- Place PIP in extension, perform DIP flexion PROM, and noting the resistance.
- Place PIP in flexion, perform DIP flexion PROM, and noting the resistance

If DIP J is easily flexed with PIP in extension as flexion---Positive for pseudo-boutonniere

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Timeline	Patient presents with PIP Contracture	Patient presents with Full PIP passive extension
Initial visit	• Static progressive splinting or casting is initiated until full passive PIP extension is achieved • Allow patient to remove splint frequently during the day to perform AROM/PROM into flexion and extension at all joints	• Begin splinting of the PIP joint in full extension at night • If loss of PIP extension occurs, add daytime wear as needed • Allow patient to perform AROM/PROM into flexion and extension at all joints during the day
Subsequent visits (6-8 weeks)	• Re-mold splint or replace cast as PIP extension improves until full passive PIP extension is present • Gradually wean from splint during the day, monitoring extension. If decreased PIP extension returns, resume full time daytime wear until next therapy visit • Continue night splinting for a few additional weeks until PIP extension is fully maintained	• Work on ROM of finger • Use of modalities as needed