

CAST AND SPLINT TECHNIQUE FOR THE TREATMENT OF PROXIMAL PHALANX FRACTURES

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OBJECTIVE To provide an option for the treatment of unstable extra-articular proximal phalangeal fractures in patients where surgical treatment can't be performed for any reason.

TECHNIQUE



1 - Perform a digital anesthetic block

2 - Place a below elbow cast and fix an aluminum foam splint between its layers. The splint must be pointed toward the scaphoid tuberosity to avoid rotational deformity

3 - Perform a reduction maneuver by traction and flexion of the finger, molding the splint at the same time. The finger is fixed with padded tape to the splint with the MCP joint at 70-90° degrees, the PIP 30-60°, DIP 0-30°

4 - Perform r-xray control every week, remove the cast at three weeks, apply a buddy-tape for 2 weeks and start early protected ROM exercises

RESULTS



- 33 patients from 1978 to 2011
- 32 Proximal Phalanx Fractures
- 3 Middle Phalanx Fractures
- 21 Men, 9 Women
- Little finger most frequent (60%), Ring Finger 2nd (31%)
- Finger ROM ≥ 240° in all patients
- Flexion Contracture Most Frequent Complication (8,5%), max of 20°
- 2 patients had treatment failure and needed to be operated (5,7%)
- All fractures healed

CONCLUSIONS

Advantages

- Non-invasive method
- Low Cost
- Can be done at the office
- Can be used for middle phalanx fractures
- Allows perfect visualization on lateral and AP x-ray views.
- Allows correction of secondary displacements over the course of the treatment.
- Allows multiple finger treatment.
- Best for fractures with rotational deformity

Disadvantages

- Patient cooperation is mandatory
- Bulky immobilization
- Be careful with PIP flexion contracture, remove cast at three weeks, maximum.
- Needs weekly physician evaluation



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