Dr Klika  
Distal Radius Fracture Post Surgical Volar Plating  

Phase 1- Early Protective Phase (1-4 weeks post-op)  

**Goals for phase 1**  
- Protect and immobilize fracture repair  
- Edema and pain control  
- Promote scar tissue mobility to decrease scar adherence after incision healing  

**Splint**  
- Volar thermoplastic wrist hand orthosis (WHO) with wrist 20-30 degrees extension  

**Modalities**  
- Icing to reduce pain and swelling  
- Heat modalities to promote flexibility of tissues  
- US as needed for scar (beginning 3 weeks post op)  

**Manual Therapy**  
- Manual Edema Mobilization (MEM) to promote edema reduction  
- Issue Compressive stocking and/or glove for edema management  
- Initiate scar massage with lotion & scar mobilization techniques (begin about 2 weeks post op); apply scar remodeling products such as Cica Gel or Elastomere as needed  

**AROM**  
- AROM of uninvolved joints: shoulder, elbow, digits/thumb  

**PROM**  
- PROM of digits if needed  

**Other considerations**  
- Splinting with wrist extension improves MP joint posture and does not compromise the rigid fixed angle fixation of the volar plate
Phase 2 – Progressive Range of Motion (4-6 weeks post op)

Goals for phase 2
- Restore flexibility
- AROM improving
- Improvement in functional abilities

Splint
- Begin weaning from splint at 6 weeks post op for non-resistive and limited-resistive activities

Modalities
- Icing to reduce pain and swelling
- Heat modalities to promote flexibility of tissues
- Other modalities as needed

Manual Therapy
- Continue MEM to promote edema reduction
- Continue Edema garments as needed
- Kinesiotaping for edema as needed
- Continue scar management

Criteria for progression to Phase 3
- AROM in pain free range

AROM
- AROM of uninvolved joints as needed
- AROM of wrist & forearm

AAROM
- Gradually advance to AAROM wrist & forearm

PROM
- PROM of digits as needed
Phase 3 – Progressive Stretching & Strengthening (6-12+ weeks post op)

Goals for phase 3
- Maximum ROM pain free wrist and forearm; full motion uninvolved joints
- Increase strength while not increasing pain level
- Full use of extremity by 3 months, depending on work demands or sports

Splint
- Discontinue except for activities involving resistance; discontinue after 12 weeks unless wrist support needed for heavy activities & sports activities
- Initiate progressive splinting if needed (6 weeks)

Modalities
- Ice as needed to reduce pain/inflammation
- Heat modalities as needed to promote flexibility of tissues
- Other modalities as needed

Manual Therapy
- MEM as needed
- Scar massage/mobilization as needed
- Joint mobilizations for wrist and forearm to promote maximal motion, if needed

A/AAROM
- Continue A/AAROM of wrist, forearm, digits, AROM of uninvolved joints as needed

PROM
- PROM of wrist/forearm to promote maximum end range motion

Strengthening (7-8 weeks post op)
- Grip and pinch strengthening with putty
- Progressive strengthening of wrist, forearm, elbow & shoulder
  - Isometrics to Isotonics

Work Conditioning (Initiate 12 weeks post op)
- Initiate a comprehensive work conditioning program for patients with high-demand, heavy manual labor occupations
References


Valdes, K. A retrospective pilot study comparing the number of therapy visits required to regain functional wrist and forearm range of motion following volar plating of a distal radius fracture. Journal of Hand Therapy (2009); 22:312-318.