

Avanthi Mandaleson

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Hand and Upper Limb Surgeon

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Lower Trapezius Tendon Transfer REHABILITATION PROTOCOL

Indications for treatment

- Massive irreparable posterior-superior (supraspinatus and infraspinatus) rotator cuff tears
- Non-arthritic glenohumeral joint
- Younger active patients

Aims of treatment

To restore abduction and external rotation strength of the shoulder

Surgical technique

Lower trapezius tendon transferred to posterior superior greater tuberosity using Achilles tendon allograft with combination of arthroscopic and open surgical techniques

Frequency of exercises 3 times daily

Phase I - (0-6 weeks)

Goals

- Reduce pain and swelling
- Maximal protection of tendon transfer
- Facilitate healing
- Passive range of motion in scapula plane

Criteria for progression

- Minimal pain with passive ROM



Provider No. 261873AA



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Patient education prior to discharge

- Abduction/ER sling at all times
- Donning and doffing of brace
- Ice to operative site

Rehabilitation protocol (0-6 weeks)

- Scapula setting exercises
- Elbow, wrist and hand range of motion exercises
- Non-weight bearing
- Passive ROM in scapula plane
 - o Flexion and scapula plane abduction to 60°
 - o ER 90°
- NO IR, adduction, horizontal flexion or extension

Phase II – (6-12 weeks)

Goals

- Restore functional PROM
- Begin active AROM
- Wean from brace (reduce abduction brace and wean to immobiliser sling)
- Retrain tendon transfer

Criteria for progression

- Minimal pain with active ROM
- Appropriate recruitment of tendon transfer



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Rehabilitation protocol

- Allow IR
- ER as tolerated
- Progress to full PROM
- Active assisted flexion
- Isometric abduction exercises in 30' and 60' ER
- Biofeedback for lower trapezius – retraining adduction and ER (progress from isometric to active exercises)
- Scapula stabilizing – isometric ex
- NO weight bearing
- NO forced stretching
- NO pulleys

Phase III – (12–24 weeks)

Goals

- Retraining of lower trapezius through active ROM
- Improve strength and stability

Criteria for progression

- Appropriate recruitment of tendon
- Proprioceptive awareness

Rehabilitation protocol

- Anti-gravity strengthening – progressive weight bearing
- Proprioception
- Facilitated flexion progressing to open chain exercises
- Optimise biofeedback
- Joint mobilization as tolerated
- NO heavy weights
- NO forced stretching
- NO sport

Phase IV – (>24 weeks)

Goals

- Advanced strengthening
- Return to activity
- Restore endurance, strength and power



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- Maximise neuromuscular control

Criteria for progression

- Strength 75–80% uninvolved side
- Function >50% improvement

Rehabilitation protocol

- Hydrotherapy
- Light weight training (safe technique – no cross body weight and reduced lever arm)
- Graduated return to sport



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