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Clavicle ORIF for acute fractures or non-unions +/- Bone Grafting

Procedure Summary

Most clavicle fractures heal without problem but some subtypes need operative intervention, as do those that do not unite and cause symptoms. The fixation is performed to bring the bone fragments back into alignment and support them while they heal. The surgical approach to the clavicle involves incising the delto-trapezial fascia and repairing it at the end. The fixation itself needs to be protected for around 4-6 weeks after surgery until enough bone healing has occurred to allow unrestricted arm movement. Early rehab is geared towards preventing the whole weight of the arm hanging down and causing stress on the fixation, whilst maintaining ROM as much as possible. Also, the delto-trapezial fascia needs time to heal to prevent deltoid detachment.

Notes: Cases which involve reconstructing missing bone with a structural bone graft may require a slower rehab protocol, i.e. delay strengthening until 3 months – this will be specified in the operation note.

AIM: At 2 months the patient should have full active range of movement

Protocol

Sling

4 weeks (do not allow arm to be unsupported for first 4 weeks)

Day 1 to 4 weeks:

Exercises taught on ward:
Pendulum in sling
AA shoulder flexion to 90° (for 6 weeks)
AA shoulder ER while supine.
Hand, wrist and elbow ROM with arm supported.

-ALLOW all active rotations in sling, with use of hand and elbow

Start rotator cuff isometrics.
Start periscapular muscle strengthening as able within precautions.

Follow-up Physiotherapy

2/52 post op.

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4 weeks to 2 months:

Phase 1 Aim: to increase joint ROM passive to active

Range of movement progressing gradually through the following.

1a Passive ROM (controlled by the patient)
1b Active assisted ROM
1c Full Active ROM
NOTE - encourage SCAPTION rather then pure abduction.
- progress using short to long lever principles.

Start phase 2 with no restrictions.

Phase 2 Aim: Stretching at end of range and strengthening

2a Stretches at end of range
- encourage stretches to be done by the patient using a broom handle etc rather than by physiotherapist
- attention to posterior capsule stretch (within relevant restrictions).

2b Strengthening against resistance only once patient is achieving functional AROM and no pain to resisted muscle testing.
- include strengthening of rotator cuff, UFT, LFT, serratus anterior, biceps, triceps, deltoid as per assessment.

2 months onwards:

Phase 3 Aim: full active rehab/ higher level function

Start sport specific rehab.

Patients can return back to competitive sports when achieving full AROM and normal strength.

General guidelines

Consultant post op follow up
All patients are normally followed up in clinic with consultant at 2/52 post op

Driving
Not before 4 weeks, then start driving dependent on symptoms