

SHROPSHIRE HOSPITALS HAND THERAPISTS

REHABILITATION GUIDELINES

OA CMC JOINT

DEFINITION

Osteoarthritis (OA) is a degenerative condition that is characterised by a primary disorder of hyaline cartilage. Ligamentous laxity and instability, either developmental or acquired are felt to be precursors of primary arthritic disease at the base of the thumb.

The trapeziometacarpal joint (TM joint) is the principal articulation imparting mobility to the thumb, but the trapezium also has lesser articulations with the scaphoid, trapezoid and index metacarpal. This four joint complex is commonly referred to as the basal joint. Although each of these joints may be affected with arthritic disease, the TM joint is the major source of symptomatic disease, with concurrent involvement of the scaphotrapezial joint in roughly half the cases.

Deformity at this joint consists of subluxation of the CMC joint, adduction deformity secondary to MCP joint hyperextension and a weak pinch grip.

Diagnosis:

This is based on a combination of both clinical and radiological findings.

Classification: (Radiological)

- Eaton and Littler Classification of Basilar Thumb Arthritis

Stage I: Slight joint space widening (pre arthritis)

Stage II: Slight narrowing of CMC joint with sclerosis (osteophyte < 2mm)

Stage III: Marked narrowing of CMC joint with osteophytes (osteophytes >2mm)

Stage IV: Pantrapezial arthritis (STT involved)

AIMS

- To provide stability and mobility to the trapeziometacarpal articulation while restoring function to the hand
- To prevent the progression of arthritis and avoiding fixed contractures.
- To decrease pain.
- To maintain the first web space.
- To maintain functional strength for pinch and grasp.
- To educate the patient in joint protection.
- To promote ADL – observing joint protection principles

Splinting:

Evidence for splinting is limited but it can be a beneficial conservative treatment. The primary function is to stabilize the base of the 1st metacarpal during pinch. In the early stages, without fixed flexion, splinting is intended to prevent adduction of the metacarpal head in to the palm and dorsoradial subluxation of the metacarpal base.

There are a multitude of thumb splints available both pre-fabricated and bespoke. Selection of the most appropriate is therefore important to achieve the best possible outcome for the patient in relieving pain and maintaining function. Consider Colditz, push brace, ETSM.

Exercise:

There is limited evidence for specific exercise for the OA thumb. Any exercise needs to be sensitive to the stage of the disease and pain. Ensure any exercise given is the most effective in improving and maintaining joint stability leading to a reduction in pain and improved function.

Early Stage:

Restore length	Adductor Pollicis
Re-educate and strengthen	Opponens Pollicis Abductor Pollicis Brevis First Dorsal Interossei Abductor Pollicis Longus (see exercise sheet)

Late Stage: General AROM thumb

Patient Information BSSH leaflet www.bssh.ac.uk

Education and Joint Protection: ARUK leaflets www.arthritisuk.org
Wax – information leaflet

Outcomes:

MSK HQ
Nelson

References

Arthritis Research UK website www.arthritisuk.org

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