

First Carpometacarpal Joint (CMCJ) Suspensionplasty with Mini Tightrope – A Case of CMCJ osteoarthritis with chronic subluxation

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INTRODUCTION

Thumb carpometacarpal joint (CMCJ) subluxation is a rare condition and account for around 1% of all hand fracture/dislocation. The most common mechanism is via axial loading while thumb is in flexed position. It can cause chronic instability; muscle imbalance and painful arthritis has significant impact to hand function. Our case reports a case of suspensionplasty with mini tightrope in a case of osteoarthritis of first CMCJ with chronic subluxation.

CASE REPORT

67 year old man with underlying diabetes mellitus, hypertension and history of trauma to his left hand 10 years ago. He seek medical attention complaining of persistent pain over first CMCJ of left hand and weakness/pain upon gripping. X-ray of the hand showed subluxation of first CMCJ. He underwent first CMCJ suspensionplasty with mini tightrope. Surgery was uneventful and he was discharged well days after. He was compliant to post op immobilization and physiotherapy. Follow up 6 months post-surgery showed that he is able to achieve full right of movement of thumb, no pain with satisfactory thumb grip strength.



Figure 1:
Pre-operative X-ray

Figure 2:
Post-op X-ray



Figure 3: Range of movement at 6 months post-op

DISCUSSION

Thumb CMCJ dislocation is rare and can often be missed. Various method of surgical techniques have been described and published including closed reduction and temporary pinning, open reduction and ligament repair and trapeziectomy alone or with temporary pinning. However, paucity in literature lead to no agreement on existing gold standard of treatment. Suspensionplasty with mini tightrope have been well described as a treatment option of osteoarthritis of first CMCJ. However, there is limited literature regarding its used in CMCJ osteoarthritis with chronic subluxation.

CONCLUSION

Suspensionplasty with mini tightrope is an option for the treatment of CMCJ osteoarthritis with chronic subluxation that has satisfactory outcome in terms of range of movement, pain reduction and increasing finger grip strength.

REFERENCE

Kim, J.S. *et al.* (2021) "Management of thumb carpometacarpal joint dislocations: A systematic review," *Journal of Orthopaedics*, 25, pp. 59–63.