

## Case Report Of A Posttraumatic Ankylosed Right Elbow Treated With Open Capsule Released, Reconstruction Of Medial Ulna Colateral Ligament (Novel Technique) And Thermal Arthroplasty Of Ulnahumeral Articular Surface

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### INTRODUCTION:

Elbow ankylosis is a well-recognized but potentially difficult problem. Heterotopic ossification (HO) commonly occurs after elbow trauma leading to severe deformity. Thus, surgical release is imperative to restore elbow function.

### CASE REPORT:

We report a 13 years old Malay girl was diagnosed with right neglected elbow dislocation. She was underwent open reduction with LCL reconstruction using Anconeus fascia 1 year ago and now complicated with stiffness due to ankylosis of the right elbow. There was terminal restriction of movement at elbow joint with fixed at 60° flexion. Radiograph revealed fusion of the distal humerus with the adjacent radius ulna and heterotopic bone formations. A decision to perform open capsular release, reconstruction and direct diathermisation of ulnahumeral articular surface was made. Intraoperative, it was abundant heterotopic bone and no articular cartilage at the ulnahumeral joint. Anterior and posterior capsule released through medial approach with HO removal with reconstruction of medial ulna collateral ligament with palmaris longus was done. Articular surface of ulnahumeral was directly diathermised.

### RESULTS:

Post-operatively, she when for regular physiotherapy. On the last follow up, there is no pain. ROM of the right elbow 5°-110° with full supination and pronation. Radiograph shows no heterotopic bone and preserve of joint space.

### DISCUSSION:

In elbow ankylosis, articular involvement has been associated with inferior clinical outcomes. Joint surface damage was associated with poorer

elbow function. Clinically, patients complained of greater pain during mobilisation, which decreased their compliance with rehabilitation and thus affected the final ROM. Direct diathermisation to the bone surface desensitization of nerves surrounding the elbow joint and will help to reduce the pain.



**Figure 1:** (Left) Preoperatively right elbow radiograph (Right) Direct diathermisation to articular surface with reconstruction with Novel technique.



**Figure 2:** Post-operatively right elbow radiograph.

### CONCLUSION:

We concluded that direct diathermisation can be apply to reduce the pain post operatively and prevention from recurrence of HO formation.

### REFERENCES:

1. Shuai Chen et al., International Orthopaedics, 2017, pg1627