

Total Elbow Arthroplasty In A Young Post Traumatic Elbow Arthritis. A Case Report

¹Khamis MN, ¹Khairul Nizam S

¹Orthopaedics, Traumatology & Rehabilitation, IIUM Medical Centre (IIUMMC), Bandar Indera Mahkota, Kuantan 25100 Pahang, Malaysia

INTRODUCTION:

Elbow arthroplasty is relatively uncommon type of arthroplasty and remains a difficult therapeutic option for young patient with post traumatic arthritis. Distortion of normal anatomy because of previous trauma with relatively higher rate of complication and mechanical failure in young patient make this procedure surgically demanding.

CASE REPORT:

A 37 years old gentleman, left hand dominant, presented with left elbow pain with restricted range of motion. He had previous history of open fracture left distal humerus and olecranon complicated with non union. Examination over left elbow range of motion is 20-90 degrees of flexion-extension with 20 degrees of supination and pronation. Sensory and motor function was intact with no evidence of infection. Radiologically revealed joint space narrowing with step deformity over the articular surface of left ulna and subluxation of left radial head. Since, uncemented elbow arthroplasty is not available in Malaysia, cemented semi constrained total elbow arthroplasty was done on January 2018 as patient willing to accept the future physical limitation and understood high rate of revision of this procedure in future. Post-operative his pain reduces, and range of motion improved to 0-130 degrees.



Figure 1: Preoperative left elbow radiograph



Figure 2: Post-operative left elbow radiograph

DISCUSSIONS:

Elbow arthroplasty in post-traumatic arthritis is challenging because of deformity, bone defect and change in joint congruency. Besides, variance of the radiological finding in relation to clinical presentation. The age at the surgery is a risk factor for complication, hence patient selection should carefully consider.

CONCLUSION:

Elbow arthroplasty has a potential to improve pain, function and quality of life of patient with post traumatic arthritis but on the same time associated with high rate of complication and mechanical failure. Therefore, elbow arthroplasty should be done in specialized center.

REFERENCES:

1. Sanchez-Sotelo, J. (2017). Primary elbow arthroplasty: problems and solutions. *Shoulder & Elbow*, 9(1), 61–70.
2. Chammas, M. (2014). Post-traumatic osteoarthritis of the elbow. *Orthopaedics and Traumatology: Surgery and Research*, 100(1 S), S15–S24.