Treatment of Comminuted Intraarticular Fracture of Distal Humerus

I Do Total Elbow Arthroplasty

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These are not easy fractures to treat

Distal to epicondyles
Devoid of soft tissue attachments
Unable to incorporate screws from locking plate well
Compromised soft tissue envelope

14.D: complex arthroplasty
13.C1: arthroplasty, metaphyseal single, metaphyseal single
13.C1: arthroplasty, metaphyseal single
Functional outcomes of type C distal humerus fractures in adults fixed by orthogonal double plating

K.C. Kapil Mani, et al

Results
Seven (13%) fractures were C1, 12 (22.2%) were C2 and 35 (64.8%) were C3 types according to the Arbeitsgemeinschaft für Osteosynthesefragen (AO) classification. Major complications were noted in 5 patients and minor complications in 19 patients. Eleven (20.4%) patients were rated as excellent, 33 (61.1%) rated as good, 7 (12.9%) rated as fair and 3 (5.6%) rated as poor. Mayo Elbow Performance Score in overall patients (n=54) was 81.62 ± 10.28, C1/C2 subgroup (n=19) was 89.05 ± 60 and C3 subgroup was 77.60 ± 9.91 (P=0.627). Similarly Disabilities of the Arm Shoulder and Hand Score in overall patients was 17.96 ± 15.67, C1/C2 subgroup was 8.78 ± 7.07 and C3 subgroup was 22.82 ± 16.78 (P=0.285).

Conclusion
Orthogonal dual plates configurations can provide anatomical reconstruction and stable fixation of Type C intra-articular fractures and allow early mobilization of the elbow after surgery. However, a significant number of patients do not satisfy after surgery.

Issues of Total Elbow Arthroplasty

Technical
Triceps function
Infection
Sturdiness
Loosening/Longevity

Total elbow arthroplasty for non-rheumatoid patients with a fracture of the distal humerus a minimum ten-year follow-up
N. Prasad, A. Ali, D. Stanley
February 2016, The Bone and Joint Journal

Survivorship, with revision and definite loosening as end-points, was 89.5% at ten years in those patients followed for a minimum of ten years.

This study had patients as young as 43
Advantage of Triceps Split

- Minimal worry of triceps insufficiency
- Direct visualization
- Protects the ulnar nerve
- Avoids placing arm in vulnerable positions
Proper Technique
Learn from other total joints
Restore center of joint
Proper cement technique
restrictor or bone plug
cement gun
Use the modern semi-constrained implant
crossed linked poly
broader articulations

Summary
Reliable results
Not for the casual elbow surgeon
Quick return to functional activities
When properly done, fewer complications
Regarding playing tennis

LIFE ISN'T ALWAYS FAIR
Now retired physician who underwent total elbow in 1998 at age 62.

Thank You