

Case Series: Radial Head Fractures

Treated with the Acumed Anatomic Radial Head System



INDICATION: Acute right radial head fracture, elbow subluxation, small coronoid avulsion, and olecranon fracture.

PRODUCTS: Acumed Anatomic Radial Head Prosthesis with Acumed Locking Olecranon Plate.

PATIENT HISTORY

32-year-old female with elbow fracture dislocation.

SURGEON

Benjamin Goldberg, M.D.

EXAMINATION

Patient had significant swelling and instability and was neurovascularly intact.

TREATMENT

- Olecranon was initially plated with a precontoured Acumed Locking Olecranon plate, through a single posterior incision, but there was still significant instability.
- A radial head replacement using the Acumed Anatomic Radial Head was performed with a lateral ligament repair.

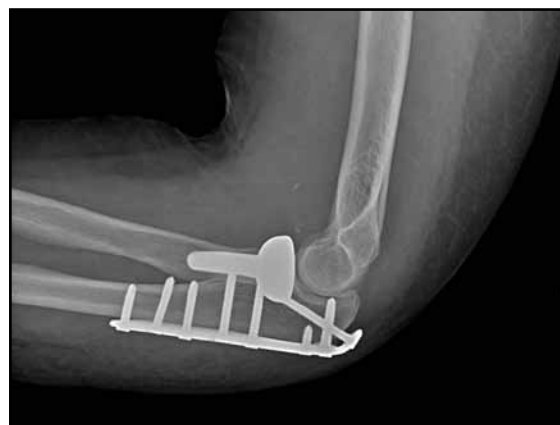
FOLLOW-UP

- Patient regained full pronation and supination, and flexion to 135° and extension to 5°.
- There was minimal anterior heterotopic ossification.

FIGURE 1: Preoperative X-ray



FIGURE 2: Postoperative X-ray



INDICATION: Acute left radial head fracture, elbow subluxation, and small coronoid avulsion.

PRODUCTS: Acumed Anatomic Radial Head Prosthesis

PATIENT HISTORY

25 year-old-male with elbow fracture dislocation due to fall from ladder.

SURGEON

Benjamin Goldberg, M.D.

EXAMINATION

Patient had significant swelling and instability and was neurovascularly intact. His elbow could be reduced but would re-dislocate at 60° of flexion neurovascularly intact.

TREATMENT

- Using the Kaplan interval through a lateral incision, the Acumed Anatomic Radial Head was used to perform a radial head replacement along with a ligament repair.

FOLLOW-UP

- Patient regained 80° of pronation and supination, and full flexion and extension.
- There was minimal heterotopic ossification anteriorly.

FIGURE 1: Preoperative X-ray



FIGURE 2: Postoperative X-ray



INDICATION: Acute left radial head fracture, posterolateral subluxation visible on fluoroscopy, and small coronoid avulsion.

PRODUCTS: Acumed Anatomic Radial Head Prosthesis

PATIENT HISTORY

37 year-old-male slipped on ice and sustained an elbow fracture. Patient was unable to fully supinate due to instability.

SURGEON

Benjamin Goldberg, M.D.

EXAMINATION

Patient had posterolateral subluxation when supinating under fluoroscopy.

TREATMENT

- Using the Kaplan interval through a lateral incision, the Acumed Anatomic Radial Head was used to perform a radial head replacement along with a ligament repair.

FOLLOW-UP

- Patient regained full pronation and supination, and lacked 5° of flexion and 10° of extension.
- There was mild-moderate heterotopic ossification.

FIGURE 1: Preoperative X-ray



FIGURE 2: Postoperative X-ray



INDICATION: Acute left radial head fracture, mechanical block to full forearm rotation, and small coronoid avulsion.

PRODUCTS: Acumed Anatomic Radial Head Prosthesis

PATIENT HISTORY

37 year-old-male fell down stairs and sustained an elbow fracture. Injury left patient unable to achieve full motion.

SURGEON

Benjamin Goldberg, M.D.

EXAMINATION

Patient had significant mechanical block to motion after intraarticular lidocaine injection.

TREATMENT

- Using the Kaplan interval through a lateral incision, the Acumed Anatomic Radial Head was used to perform a radial head replacement along with a ligament repair.
- A +2mm neck was used due to comminution.

FOLLOW-UP

- Patient regained full pronation and supination, and lacked 10° of flexion and 15° of extension.
- There is mild heterotopic ossification.

FIGURE 1: Preoperative X-ray



FIGURE 2: Postoperative X-ray



INDICATION: Acute right radial head and neck fracture, radial shortening (Essex Lopresti injury), and posterolateral instability.

PRODUCTS: Acumed Anatomic Radial Head Prosthesis

PATIENT HISTORY

40 year-old-male fell down flight of stairs and sustained an elbow fracture with distal radioulnar joint injury. Patient in significant pain and unable to achieve full rotation.

SURGEON

Benjamin Goldberg, M.D.

EXAMINATION

Patient had significant crepitation at the wrist and elbow with reduced range of motion in supination and pronation.

TREATMENT

- Using the Kaplan interval through a lateral incision, the Acumed Anatomic Radial Head was used to perform a radial head replacement along with a ligament repair.
- A complete disruption of the radioulnar interosseous membrane with significant radial shortening was apparent intraoperatively.

FOLLOW-UP

- Patient regained 85° of pronation and 75° of supination, and lacked 10° of flexion and 15° of extension.
- There was minimal heterotopic ossification.

FIGURE 1: Preoperative X-ray



FIGURE 2: Postoperative X-ray



INDICATION: Left radial head and neck nonunion after 4 months with pain and weakness.

PRODUCTS: Acumed Anatomic Radial Head Prosthesis

PATIENT HISTORY

35 year-old-male fell off a bicycle and sustained a non-displaced radial head and neck fracture. Range of motion was permitted at one week. The fracture lines became more pronounced with bone resorption and no evidence of healing was evident 4 months after injury despite the use of an external bone stimulator.

SURGEON

Benjamin Goldberg, M.D.

EXAMINATION

Patient had pain with elbow range of motion with a loss of 10° of flexion and full pronation and supination.

TREATMENT

- Using the Kaplan interval through a lateral incision, the Acumed Anatomic Radial Head was used to perform a radial head replacement along with a ligament repair.

FOLLOW-UP

- Patient regained full elbow motion without pain.

FIGURE 1: Preoperative X-ray



FIGURE 2: Postoperative X-ray



CASE SERIES AUTHOR

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