

LITERATURE REVIEW

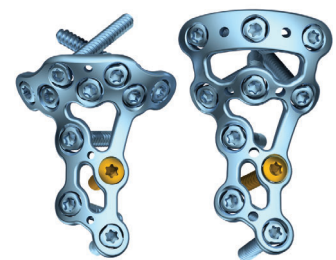
Reconstruction of comminuted radial head fractures by ORIF (Mason type III-IV)

CLINICAL ISSUE:

- The elbow is a complex joint with multiple articulations.
- Elbow function can be affected by plate impingement, heterotopic ossification, loss of reduction, or nonunions.

MEDARTIS SOLUTION:

- Buttress Plate for positioning distal to the annular ligament and Rim Plate for positioning close to the joint surface with subchondral screw positioning.
- Plate sizing designed to address the "safe zone".
- Two proximal rows of screws for better support of the head.
- Grid structure of the plate ensures high strength and rotational stability.
- Treatment of complex multi-fragment fractures possible, preventing radial head resection.



TriLock Radial Head Plates 2.0

LITERATURE REVIEW:

Crönlein, et al. retrospectively reviewed the outcomes of ORIF reconstruction of comminuted radial head fractures (Mason type III and IV) in 20 patients with follow-up examination after a mean of 30 months (range: 18-66 months).¹

1. No cases of delayed union, nonunion, implant failure, secondary loss of reduction, or heterotopic ossification were observed.¹
2. Range-of-motion was unrestricted in 10 patients. A deficit of 5° extension deficit was observed in 6 patients, and an extension and/or supination deficit of 10° in 4 patients.¹
3. MEPS score of 98 ± 4 (range 85-100), QuickDASH score of 3 ± 6 (range 0-21).¹
4. Patients were highly satisfied in 17 cases and satisfied in 3 cases.¹
5. Hardware was removed due to patient request in 8 patients.¹

KEY TAKEAWAY:

The authors conclude, "The treatment of comminuted radial head fractures using anatomically preshaped locking radial head plates represents a reliable and safe surgical approach, leading to good to excellent functional results."¹ Additionally, they include, "Based on the present data ORIF by anatomically preshaped locked plating seems to represent a reliable and safe surgical approach. Due to the introduction of these modern implants the indication for ORIF of complex radial head fractures can be enlarged and early active rehabilitation programs can be applied."¹



Scan the QR Code to read this study and learn more about the specific methods and results from this study.

REFERENCES:

1. Crönlein, M., et al. (2017). Using an anatomically preshaped low-profile locking plate system leads to reliable results in comminuted radial head fractures. Arch Orthop Trauma Surg. 137(6):789-795.