COMPARATIVE ANALYSIS OF FUNCTIONAL OUTCOME OF INTERCONDYLAR FRACTURE DISTAL HUMERUS BY PLATE OSTEOSYNTHESIS USING TRAP APPROACH AND OTHER POSTERIOR APPROACHES

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ABSTRACT

BACKGROUND: This study aimed to evaluate the functional outcomes of patients with intra-articular distal humerus fractures treated with triceps-reflecting anconeus pedicle (TRAP) and olecranon osteotomy.

METHODS: Twenty patients with intra-articular distal humerus fractures were prospectively analyzed. TRAP approach was used in 10 patients (6 males, 4 females;
mean age 40.1 years, range 17–70), and olecranon osteotomy in 13 patients (9 males, 4 females; mean age 35.4 years, range 18–62). Fractures were classified using the AO/ASIF classification. Functional results were evaluated with the Mayo elbow performance score (MEPS)

RESULTS: The overall mean arc of elbow motion was 108° (range 70°–140°) in the TRAP group, whereas that of the olecranon osteotomy group was 98° (range 70°–115°). A significant difference was observed between the two groups in terms of overall mean arc of elbow motion (p=0.038). There were no significant differences noted between the two groups in terms of mean MEPS and DASH scores (p=0.412, p=201, respectively). The overall complication rate was 27.2% in the TRAP group and 55% in the olecranon osteotomy group

CONCLUSION: TRAP is a successful approach in the treatment of intra-articular distal humerus fractures
that provides better arc of elbow motion, reduces complications and reoperation rates.

Key words: Distal humerus; internal fixation; intra-articular fracture; olecranon osteotomy; TRAP