

## **RADIOLOGICAL AND FUNCTIONAL OUTCOMES AFTER CONSERVATIVE TREATMENT OF INTRA-ARTICULAR DISTAL HUMERUS FRACTURES IN ELDERLY AND LOW DEMAND PATIENTS**

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**Aim:** With the increasing of osteoporotic aging population, intra-articular distal humerus (IADH) fractures are becoming more frequent. Open Reduction and Internal Fixation (ORIF) or Total Elbow Replacement (TER) are the gold standard for these fractures. However in the elderly, high comminution of the fracture, poor bone quality and comorbidities are influencing factors for high complication rates. Conservative treatment in younger patients is rarely considered as it is believed to give poor functional results, however in the elderly and frail patients this might be a viable option. The aim of this study was to review the radiological and functional outcomes in patients treated conservatively for an IADH fracture.

**Material-Method:** Between 2014 and 2018, 12 patients (9 females and 3 male) presented at our clinic with 12 closed IADH fractures. The mean age of the patients was 82 (76-97) years. Due to low demand and high comorbidities of the patients, conservative treatment was chosen. The follow up was at 2 weeks after the fracture (ATF) and then every month for up to 12 months ATF. Initially they were immobilized with a long back slab and per os analgesics were prescribed. At 3 weeks ATF they were fitted with a functional arm brace and passive movement as pain tolerated was encouraged. Plain X-Rays were taken at each visit. Functional outcome was measured using the Bromberg-Morrey score and Oxford Elbow Score (OES) and Visual Analogue Scale.

**Results:** From the 12 fractures, 6 were united by 3 months ATF, 3 at 5 months ATF and 3 were not consolidated by 12 months ATF. The Bromberg-Morrey score continuously improved after the first month (mean 38.5) up to the month 12 (mean 81.2). The mean OES at 12 month follow up was 28 (22 to 35). Visual Analogue Scale scores were greatly improved after 1 month and was not correlated with fracture union.

**Conclusions:** Conservative treatment of IADH fractures in the elderly, low demand and high comorbidities patients, provides moderate results but avoids complications from surgical intervention, thus it remains a viable option.