

ARTHROSCOPIC ANCHOR SUTURE FIXATION FOR ISOLATED GREATER TUBEROSITY DISPLACED FRACTURE OF HUMERUS

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Introduction: Arthroscopic double-row suture anchor fixation, previously used in rotator cuff repair, has been reported used for the treatment of greater tuberosity fractures. This technique improves healing with early restoration of shoulder function.

Discussion: A 23 years old Indian gentleman, also a machine operator with right hand dominant presented with right shoulder pain following a road traffic accident. Plain radiograph showed displaced fracture of greater tuberosity and proceeded with CT scan (Figure 1). CT findings reported as avulsion fracture of the greater tuberosity of right humerus. He was then subjected to arthroscopic fixation of greater tuberosity fracture, fracture fragment identified and reduced arthroscopically and fixed with 4 limbs 1.8mm anchor suture in double row technique. Post operatively patient was put on brace and advise to avoid abduction and external rotation for the first 6 weeks. Progressively well, at 2 months, abduction was 90 degree, forward flexion 120 degree, internal and external rotation 45 degree and extension 45 degree. At 4 month follow up, he attained full range of motion of right shoulder, pain free and is already return to his work.

Conclusion: Greater tuberosity avulsion fractures may be treated with arthroscopic fixation, similar to full thickness rotator cuff tears with a double row suture anchor technique. Arthroscopy enables reduction of the postero-superiorly displaced fracture fragment less invasively, the evaluation and simultaneous treatment of other lesions like labral and rotator cuff injuries, and reduction of the radiation hazard. Recent arthroscopic techniques have allowed us to reduce and fix this fracture by arthroscopy and have shown satisfactory early clinical results in patients.