

Shoulder Hemiarthroplasty for Trauma: does a Tuberosity Friendly Prosthesis Improve Outcome?

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Abstract

BACKGROUND:

Reported outcomes of shoulder hemiarthroplasty for proximal humeral fractures have been poor due to tuberosity non-union or rotator cuff disruption. Newer designs provide features to allow secure tuberosity apposition and stabilisation. To evaluate the outcomes of a shoulder hemiarthroplasty system with "tuberosity friendly" features in the treatment of multi-fragmentary proximal humeral fractures.

MATERIAL AND METHODS:

An analysis of 12 patients undergoing Exactech Equinox hemiarthroplasty for proximal humeral fractures over a two year period. Radiological and clinical outcomes were assessed.

RESULTS:

Twelve patients, aged 55 to 84, were examined. Median follow up was 20 months (range 7 to 31). Although tuberosity reduction remained and the tuberosities united radiologically in all cases, 5 patients went on to develop superior migration of the humeral head. The median Oxford shoulder score was 25.7 out of 48 (range 11 to 43).

CONCLUSIONS:

1. A trauma hemiarthroplasty system combined with good surgical technique can ensure tuberosity fixation and subsequent union. 2. Superior migration of the prosthesis can still occur due to rotator cuff disruption. 3. The use of reverse shoulder arthroplasty may be more appropriate in elderly patients with multi-fragmentary proximal humeral fractures.