

Modular Hemiarthroplasty for the Treatment of Fractures of the Proximal Humerus

Won-sik Choy, Kwang-won Lee, Moon-ho Sohn, Young-wan Kim

Department of Orthopaedic Surgery

Eul-Ji College of Medicine, Tae Jon, Korea

From 1993 to 1996, we have used a new modular shoulder prosthesis for the treatment of complex acute fracture-dislocations of the proximal humerus. The purpose of this study is to evaluate function, Pain relief, and patient satisfaction. The study included 12 patients (12 shoulders) with an average age of 65 years (range, 45 to 78 years). According to the Neer classification system there were 4 fracture-dislocations, 4 four-part fractures, 3 three-part fractures, and one head splitting fracture. The hemiarthroplasty was performed at an average of 4 days (range, 3 to 10 days) following the injury. The deltopectoral approach was used in all patients, and the prosthesis was implanted with cement in ten cases. Follow-up evaluation, at an average of 32 months post surgery, included clinical and radiographic examination. The active forward elevation averaged 120 degrees; external rotation, 35 degrees; and internal rotational, to the first lumbar vertebra. All of the patients excepts for the two who had a poor results were graded as good or excellent according to UCLA shoulder rating scale. Complications consisted of one tuberosity displacement, one peri-operative death, loosening of one uncemented humeral prosthesis. Modular hemiarthroplasty facilitated restoration of humeral length, anatomic repositioning of the tuberosities, and precise soft tissue balancing which are critical to the success of prosthetic arthroplasty in the treatment of proximal humerus fractures.