

The Treatment of the Floating Shoulder

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Introduction

Ipsilateral fractures of the neck of the scapula and the clavicle are generally described as a floating shoulder'. Many authors like Hardegger, Herscovici et al and Leung and Lam consider this combination of injuries to be unstable. In their opinion conservative treatment may lead to a poor functional outcome, and to asymmetry of the external aspect of the shoulder. Our aim was to review a series of 13 patients with ipsilateral fractures of the neck of the scapula and the clavicle that were treated in authors' hospital in order to identify the clinical results of operative and conservative treatment.

Materials and Methods

Between January 1997 and March 2000, we treated 13 patients with floating shoulder. They all responded and together had diagnosed 13 patients with this injury during this period. The medical records and radiographs of all the patients were reviewed. The mean age of the patients was 42 (20-63) years. All patients had associated chest injuries, but there were no injuries of the brachial plexus or the peripheral nerves. Three patients, whose general condition was poor, were treated conservatively. Five underwent internal fixation of both the clavicular and scapular fractures and five of the clavicle only. We evaluated the clinical results using the Rowe Score after a minimum follow-up of 1 year.

Results

All fractures united. The average time to union was 14 weeks for clavicular and 11 for scapular fractures. There was malunion in four of five scapular fractures treated conservatively. A functionally better result was obtained in the surgical group with a mean Rowe Score of 88, compared with the conservative group whose mean score was 77. Surgical

treatment for double disruption of the SSSC is a good option, allowing early rehabilitation and giving good functional results.

Discussion

Goss (1993) also strongly recommended surgical stabilization of both sides, stating that conservative treatment causes shoulder drooping. In the review of our patients who underwent osteosynthesis of both sides, the fracture gap in the scapular neck had been identified to be more than 1 cm even after clavicle fixation during the operation. Additional surgical fixation of the scapular was performed if displacement remains in the scapular neck fracture after clavicle osteosynthesis. Solid union and excellent functional results were achieved without impingement symptoms or pneumothorax reported as surgical complications by Leung and Lam (1993). The results of this study present that displaced scapular fractures of more than 1 centimeter are related to poor functional results. Surgical stabilization of both fractures is recommended in floating shoulder to obtain good functional results for early rehabilitation and to avoid unexpected metal failure.