

Scapular Fractures: Do We Need To Fix?

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INTRODUCTION:

There are growing concerns regarding indications of operative treatment of scapular fractures. Though certain fractures give better results with non-operative treatment, not all have a favorable outcome. The purpose of this study is to evaluate the functional outcome of scapular fractures treated by open reduction and internal fixation.

METHODS:

An open labeled case series study was performed between 2012 and 2015. We treated 12 patients with either fracture body of scapula extending to the lateral column, or displaced apophyseal fractures by open reduction internal fixation with plate and screw. Posterior universal approach (Judet's & Modified Judet's) was used under general anesthesia with patient in lateral, prone or beach-chair position. Mobilization exercise was started at day 1. Age of the patients, mechanism of injury, type of injury and associated injuries were evaluated. Follow up was carried out at 3 months, 6 months. Functional outcome assessed at 1 year with DASH score.

RESULTS:

Of total 12 patients, 6 had direct injury to scapula, 7 fractures were body with apophyseal and 5 of body of scapula. 33.34% of body fracture extending to lateral column was associated with hemopneumothorax, 33.34% with spine injuries, 16.66% with head injury, 8.33% with ipsilateral clavicle fracture and 8.33% fracture with brachial plexus injury. No non-union was reported. DASH score assessment shows that 8 out of 12 patients have outcome ranging from normal function to mild disability (28.57 ± 13.14).

DISCUSSIONS:

Primary goal of the surgery is to get anatomical reduction and rigid fixation so that the scapula-thoracic movement and scapula-humeral movement can be initiated at the earliest. To get synchronized scapulo-thoracic movement, lateral column of the scapula needs to be fixed. Most common associated injury in our study is chest and spine injury, which delayed fixation up to two weeks in 25% of the cases.

CONCLUSION:

Displaced fractures of the body and lateral column need to be fixed since it affects the orientation of gleno-humeral joint. Reconstruction of outline of scapula results in synchronized scapulo-thoracic movement, allows early mobilization and chest rehabilitation.

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