

Scapular Fracture Open Reduction and Internal Fixation

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Background

Scapular fractures occur relatively infrequently and account for 0.4% to 0.9% of all fractures and for approximately 3% to 5% of all fractures of the shoulder girdle. They mostly result from high-energy trauma and often are observed in polytrauma patients.

The goal of the management of scapular fractures is to restore full, pain-free range of motion of the shoulder and to prevent late complications. Although nonsurgical treatment often is indicated, patients with considerable intra-articular step-off and glenohumeral instability should be treated via open reduction and internal fixation. In addition, if patients have additional injuries that may preclude positioning or skin incisions, a two-stage procedure may be necessary.

Purpose

This video demonstrates a two-stage surgical technique for open reduction and internal fixation of an intra-articular scapula fracture with associated glenohumeral instability.

Methods

The evaluation, diagnosis, and management of scapular fractures is discussed. The case presentation of a 29-year-old man with an intra-articular scapula fracture and an associated glenohumeral dislocation sustained during a motorcycle accident who underwent two-stage scapula open reduction and internal fixation is reviewed.

Results

The patient progressed through a standardized rehabilitation protocol. At 6 weeks postoperatively, the patient had minimal pain and good passive and active range of motion; however, he reported some residual weakness with external rotation.

Conclusion

Surgical repair of the glenoid and scapula is necessary in patients with intra-articular involvement and shoulder instability. This two-stage procedure involved initial fixation of the glenoid face followed by plating of the scapular spine. Previous series have shown good radiographic and clinical outcomes after scapular fracture open reduction and internal fixation.