

## Scapulothoracic Arthrodesis for Refractory Shoulder Dysfunction: A Retrospective Study of Indications and Functional Outcome

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Eleven shoulders (9 patients) with refractory scapulothoracic dysfunction were treated with scapulothoracic arthrodesis between 2000 and 2006. Refractory shoulder dysfunction included facioscapulohumeral muscular dystrophy in five shoulders (3 patients), refractory scapular winging with long thoracic nerve palsy in one shoulder, scapular winging caused by serratus anterior palsy with trapezius dysfunction in one shoulder, post-surgical thoracic outlet syndrome due to medial clavicle resection in two shoulders, refractory scapular winging with spinal accessory nerve injury in one shoulder, and chronic trapezius rupture caused by cervical spine surgery in one shoulder. The mean active flexion was improved from 82 degrees preoperatively to 112 degrees postoperatively. The mean Constant score was improved from 27.2 points to 68.0 points. Two shoulders (1 patient) that had facioscapulohumeral muscular dystrophy had broken wires due to nonunion, and one patient had a reactive pulmonary effusion. In ten of the eleven shoulders, the patients were satisfied with their results.

The scapulothoracic arthrodesis can cause significant pain relief and functional improvement in refractory scapulothoracic and/or shoulder dysfunction. By selecting patients that present with appropriate indications, and using experienced surgical technique through complete preoperative evaluation, we can diminish the complication rate and make good clinical outcomes.