

Scapulothoracic Arthrodesis: Indications, Technique and Results

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BACKGROUND and MATERIALS

Twenty-three shoulders in 20 patients underwent a scapulothoracic arthrodesis for a variety of clinical disorders, including fascioscapulothoracic muscular dystrophy, scapular winging from serratus anterior palsy and spinal accessory nerve palsy, painful scapular crepitation, cleidocranial dysostosis and secondary scapular winging after multiple prior surgeries and in association with multidirectional glenohumeral instability. All patients were extremely disabled with pain and loss of function due to their symptomatic scapular winging, and many of the patients underwent multiple previous procedures on their shoulders prior to the scapulothoracic arthrodesis. Surgical indication was stabilization of the painful scapulothoracic articulation to provide pain relief and allow functional use of the involved arm for activities of daily living. Surgical technique utilized a semi-tubular plate and wire construct along the medial border of the scapula with the use of autograft and/or allograft bone between the scapula and the rib cage. Patients were postoperatively immobilized for 12 weeks.

RESULTS

Complications occurred in over half of the patients and included pulmonary complications, hardware failure, pseudoarthroses, and persistent pain. Postoperatively, 91% (21 of 23) of the patients felt that the pain in their shoulder complex was improved and that they were satisfied with their functional outcome.

SUMMARY

In summary, scapulothoracic arthrodesis can improve function and reduce pain in the shoulder complex in patients with debilitating complex scapulothoracic dysfunction. However, the high incidence of complications with this procedure remains a concern.