

Title

Latissimus Dorsi Tendon Transfer for Irreparable Posterosuperior Rotator Cuff Tears. A retrospective study of 42 Cases

Authors

Magnús P. Bjarnason Obinah, Theis Muncholm Thillemann, Janne Ovesen, Brian Elmengaard, Hans Viggo Skjeldborg Johannsen. Shoulder and Elbow Unit, Department of Orthopaedic Surgery, Aarhus University Hospital.

Background:

Latissimus Dorsi Transfer (LDT) was proposed by Gerber in 1988 for treating irreparable posterosuperior rotator-cuff tears involving the supraspinatus and infraspinatus. These injuries can cause superior migration of the humeral head, which may lead to glenohumeral cartilage degeneration due to excentric wear, and ultimately cuff tear arthropathy.

Purpose/Aim of Study.

The aim was to retrospectively evaluate the 1-11 years results after LDT in a consecutive series of 42 cases.

Materials and Methods

We included 42 LDT procedures in 41 patients treated in the period from 2003-2013. Pre- and peroperative information was collected by review of medical reports. The primary outcome was failure defined as graft rupture or revision surgery (shoulder arthroplasty). Secondary outcomes obtained at follow-up included range of motion (ROM), Constant score, Oxford Shoulder Score (OSS), simple shoulder value (SSV) and radiographic evaluation.

Findings / Results

Mean follow-up was 76.5 months (19 - 137). Mean age at operation was 58,3 (49 - 69). Eight patients had revision surgery, with a median interval between index and revision surgery of 45 months (8 - 96). One patient had a graft-failure. The cumulative 5 year survival rate was 83,9% (95% CI: 67,5 - 92,4). At follow-up mean active flexion was 105° (95% CI: 85 - 126), abduction 102° (95% CI: 81 - 122) and external rotation 28° (95% CI: 21 - 34). Mean Constant score was 44 (95% CI: 37 - 50), mean OSS was 32 (95% CI: 28-37) and mean SSV was 50 (95% CI: 39 - 60). When asked if they would choose a LDT again if given the same preoperative circumstances; 90% answered yes.

Conclusions

Latissimus Dorsi Transfer is a satisfactory treatment for irreparable posterosuperior rotator-cuff tears. At long term follow-up we found acceptable functional outcome and pain relief with good overall patient satisfaction.