

# RÉSULTATS DES PROTHÈSES D'ÉPAULE APRÈS CHIRURGIE DE LA COIFFE DES ROTATEURS

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## ABSTRACT

We report a multicentric and retrospective study on 31 cases of shoulder arthroplasty with previous surgery on subacromial space. The average age of the 22 females and 9 males at the time of arthroplasty was 65 years ranged from 34 to 84 years. To be included in the series, patients had to have a previous surgery on the subacromial space: 20 have had an acromioplasty (17 arthroscopy procedure and 3 with an open approach) and 11 have had a rotator cuff repair (1 biceps tenodesis).

16 total arthroplasties and 15 hemiarthroplasties were performed for 2 rheumatoid arthritis, 5 humeral head osteonecrosis, 9 rotator cuff tear arthropathies and 15 primary gleno-humeral osteoarthritis. The rotator cuff status was normal in 12 cases. We observed a partial tear in 4 cases and a complete tear in 15 cases.

On CT-scan, used in preoperative anatomic assessment, a fatty muscle degeneration was observed in 15 cases (6 stage II,

4 stage III and 5 stage IV) in Goutallier and Bernageau Classification.

Each patient was evaluated on Constant's score before and after surgery and with Neer-Cofield classification for full rehabilitation program. 3 rotator cuff tear arthropathies have had a revision's arthroplasty with Grammont Reverse prosthesis and were not used for final results. For the other 28 cases, average follow up was 39 months ranged from 24 to 76 months. Post-operative Constant's score was better for each patient, increased from  $24 \pm 14$  to  $54 \pm 17$ . All items were improved ( $p < 0.05$ ), specially for pain and mobility scores, explaining the good subjective result (16 very satisfied, 9 satisfied, 2 poor and 1 fair result). Neer-Cofield classification gave 11 excellent results, 8 satisfactory results and 9 non satisfactory results.

The type of previous surgery (subacromial decompression or rotator cuff repair) seemed to influence the result ( $p = 0.08$ ) essentially because arthroplasty after failed rotator cuff repair gave less mobility

than arthroplasty after subacromial decompression ( $p=0.06$ ).

Augmented score between pre and post-operative time was significantly better for acromioplasty group ( $p=0.02$ ). The rotator cuff status observed during arthroplasty did not influence the Constant' score. A fatty muscle degeneration, for stage more than 2, seemed to give lesser results ( $p=0.07$ ).

Activity score was better after an acromioplasty performed in a young patient who have an active and working life ( $p=0.003$ ).

Mobility score significantly decreased ( $p=0.008$ ) in cuff tear arthropathy group compared with the same aetiology treated by arthroplasty without previous surgery. In conclusion, arthroplasty with previous surgery have the same prognosis than arthroplasty without previous surgery in each aetiology group except for cuff tear arthropathy where a previous surgery decrease significantly the post-operative mobility specially after a failure of previous rotator cuff repair.