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The reverse shoulder arthroplasty: subscapularis role

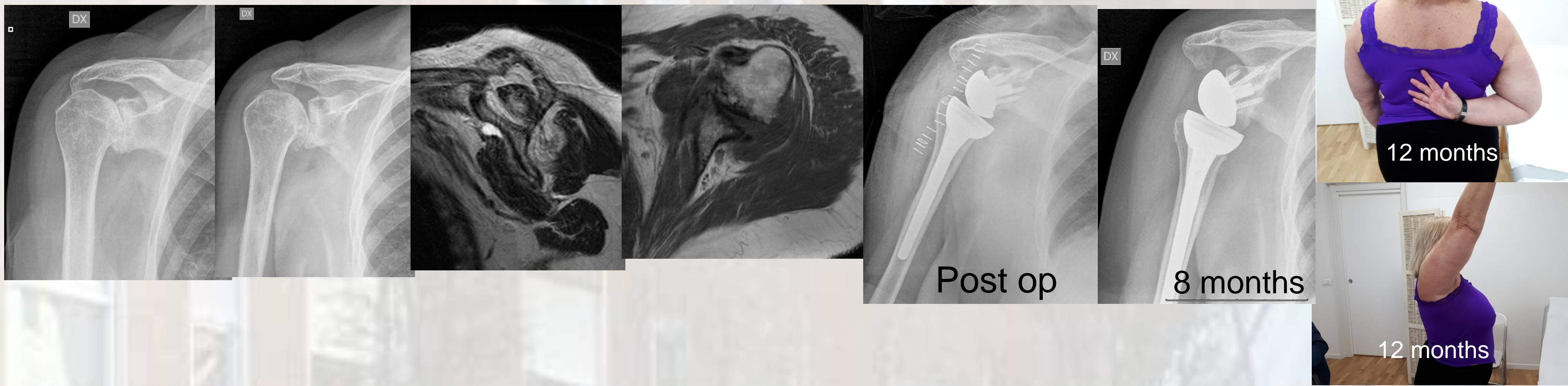
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Background We have done an experimental double-blind randomized controlled clinical trial.

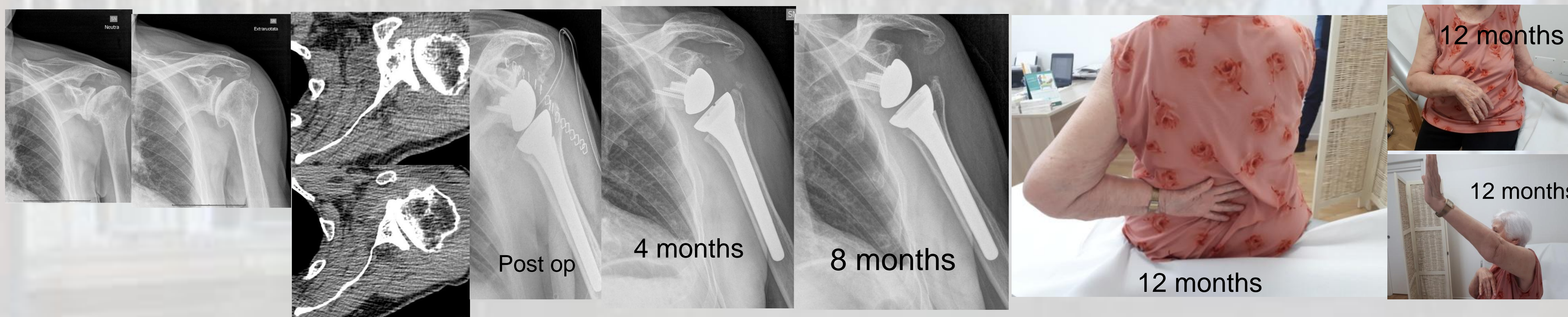
Objectives Aim of the study is identify if there are or not advantages when the subscapularis tendon is repaired at the end the reverse shoulder arthroplasty (RSA) surgery.

Study Design & Methods Between 2014 and 2015, we have operated 44 patients (30 female, 14 men) that have been divided in two groups: group A) 22 patients to which we have repaired the subscapularis (RS); group B) 22 patients to which we don't have repaired the subscapularis (NRS). Average follow up was 24 months. Radiologically there was severe arthrosis which was studied with RX, TAC and NMR according Hamada and Walch classification. Inclusion criteria: arthropathy. Exclusion criteria: fracture, previous surgery, tumor. We have used only one kind of RSA with medialized humeral component, 20° retroverted. We used only the deltoid-pectoral surgical way. The range of movement, Constant-score and UCLA-score have been included in pre and post-operative clinical evaluation.



woman, 62 years old, RSA with subscapularis repair

Results Pre-op results: UCLA score: 5; Constant shoulder score: 16. Active elevation: 63°; ER1: 10°, ER2: 50°, IRD10. Group A post-op results, UCLA score: 30; Constant Shoulder score: 72. Active elevation: 140°, ER1: 20°, ER2: 50°, IR: L1. Group B post- op results, UCLA score: 33; Constant Shoulder score: 74. Active elevation: 140°, ER1: 30°, ER2: 80°, IR: buttock. The surgical time was 50 minutes in the group B and 60 minutes in the group A (p<0.05). We have observed one case of dislocation in both group. No case of infection in two group. After surgery we have observed, in two group, a significant improvement both Costant score and UCLA score: it was observed an improvement of the range of motion in all trajectories in two groups (p<0.001) without significant difference in both group.



woman, 78 years old, RSA without subscapularis repair

Conclusions the subscapularis repair it isn't needed at the end the reverse shoulder arthroplasty surgery for arthropathy because the final results are similar in the two groups both for pain that for movement and percentage of complication. A limit of our study is not consider the IR limit caused by glenoid conflict with humeral component.

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