

A COMPARATIVE STUDY BETWEEN THE RESULTS OF ARTHROSCOPIC ROTATOR CUFF REPAIR WITH AND WITHOUT SUBACROMIAL DECOMPRESSION

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INTRODUCTION

The rotator cuff muscles are the main muscle group that stabilize and support the shoulder joint. The four rotator cuff muscles are the supraspinatus, infraspinatus, subscapularis, and teres minor.

The most common shoulder disease in patients with shoulder problems is rotator cuff tear. In the general adult population, the incidence of rotator cuff tears varies from 25% in people in their 60s to over 50% in people in their 80s.

For decades, subacromial impingement held the dominant position as the primary cause of rotator cuff tears. This led to surgical interventions that included both repairing the torn tendons and decompressing the subacromial space to alleviate the impingement. On the other hand, recent studies had shown that subacromial decompression had no significant difference as regard follow up of rotator cuff repair.

AIM OF THE WORK

The aim of the work was to compare between functional results of arthroscopic rotator cuff repair with and without subacromial decompression.

SUBJECTS AND METHODS

We prospectively compared the results of arthroscopic rotator cuff repair with and without subacromial decompression in 60 patients.

The age of the patients in this study ranged from 22-69 years old.

The patients were simply randomized into two groups using block randomization.

Group 1: Underwent arthroscopic repair of the rotator cuff tear with subacromial decompression.

Group 2: Underwent arthroscopic repair of the rotator cuff tear only without subacromial decompression.

All patients were evaluated postoperatively at least for 12 months according to the Modified University of California at Los Angeles score system, the quality of life using The Disabilities of Arm, Shoulder, and Hand (DASH) Score, and the extent of pain using visual analogue scale (VAS).

RESULTS

Functional outcome using the modified University of California-Los Angeles (UCLA) score:

Group II (RCT repair without SAD) performed a little better in terms of function compared to group I (RCT repair with SAD). The mean modified UCLA was 29.40 and 27.47 in group II and group I respectively ($p=0.267$). According to chi-square test, this difference reflects no statistical significance in the functional outcome between the two groups. (Table 1)

Extent of pain using the Visual Analogue Scale (VAS):

Although group II experienced less pain as compared to group I, this difference reflects no statistical significance between the two groups. ($p=0.283$) (Table 2).

Complications:

Group I showed a bit higher overall complication rate than group II. Complications were encountered in 16.7% in group I compared to 13.3% in group II. This difference reflects no statistical significance. ($p=0.131$). (Table 3).

Table 1: Comparison between the two studied groups according to postoperative modified UCLA (total score)

Postoperative UCLA	Group I (n = 30)		Group II (n = 30)		Test of sig.	p
	No.	%	No.	%		
Poor (0 - 20)	5	16.7	4	13.3	c ² = 5.853	MCp= 0.128
Fair (21 - 27)	5	16.7	0	0.0		
Good (28 - 33)	17	56.7	22	73.3		
Excellent (34 - 35)	3	10.0	4	13.3	U = 375.50	0.267
Min. - Max.	10.0 - 35.0		17.0 - 35.0			
Mean ± SD.	27.47 ± 6.46		29.40 ± 4.90			
Median (IQR)	30.0 (24.0 - 32.0)		30.5 (28.0 - 33.0)			

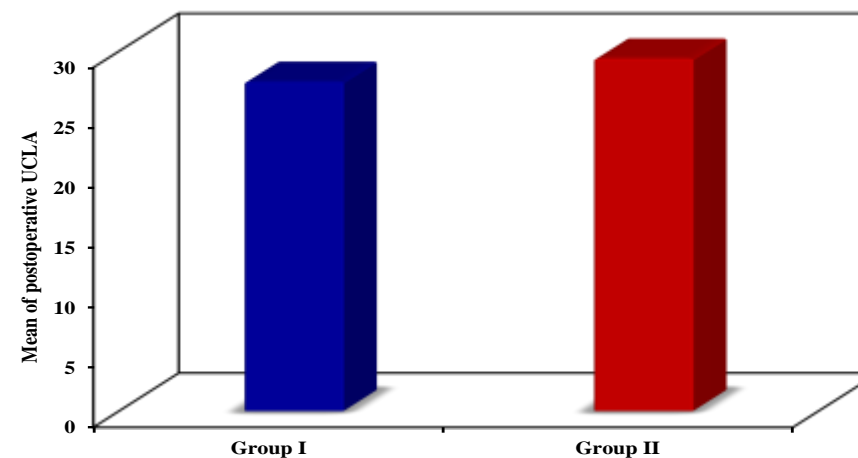


Fig.: Comparison between the two studied groups according to postoperative UCLA (total score).

Table 2: Comparison between the two studied groups according to postoperative VAS

Postoperative VAS	Group I (n = 30)		Group II (n = 30)		Test of sig.	p
	No.	%	No.	%		
No pain	2	6.7	1	3.3	c ² = 2.104	MCp= 0.538
Mild	21	70.0	25	83.3		
Moderate	6	20.0	4	13.3		
Severe	1	3.3	0	0.0	U = 380.0	0.283
Min. - Max.	0.0 - 8.0		0.0 - 4.0			
Mean ± SD.	2.70 ± 1.60		2.23 ± 1.07			
Median (IQR)	2.0 (2.0 - 3.0)		2.0 (1.0 - 3.0)			

Table 3: Comparison between the two studied groups according to complication

Complication	Group I (n = 30)		Group II (n = 30)		χ ²	FEp
	No.	%	No.	%		
No	25	83.3	26	86.7	0.131	1.000
Yes	5	16.7	4	13.3		
Re-tear	1	3.3	0	0.0		
Stiffness	4	13.3	4	13.3		

CONCLUSION

Arthroscopic rotator cuff repair shows no statistically or clinically significant difference in outcomes with or without subacromial decompression.

The short-term clinical results of arthroscopic rotator cuff repair are not improved by acromioplasty. As a result, it appears that the decision to do acromioplasty or not will likely depend on the surgeon's preference.