



“Together,
We Can Go Further”

KSES 2026

The 33rd Annual
International Congress of the
Korean Shoulder and
Elbow Society

March
27(Fri) ~ 28(Sat), 2026
BEXCO, Busan, Korea

- Abstract No. : F-0081
- Category : Shoulder
- Detail Category : Rotator cuff

Comparison of clinical outcomes between plastic braces versus sponge abduction packs in the early rehabilitation period after rotator cuff repair

Jianghui Qin¹, Rui Du¹, Qing Jiang¹

Dept. of Sports Medicine and Adult Reconstructive Surgery, Nanjing University Medical School Affiliated Drum Tower Hospital, China¹

Introduction and Background

The study compares adjustable plastic braces fixed at 45° abduction versus sponge abduction packs for their effects on short-term pain and functional outcomes following arthroscopic rotator cuff repair, while analyzing the feasibility of replacing sponge abduction packs with plastic braces.

Material and Method

A total of 48 patients were recruited between April and July 2024 and stratified by gender into 4 groups: plastic brace group and sponge abduction pack group (12 patients each). At 3 weeks post-operation, follow-up was conducted using the Western Ontario Rotator Cuff Index (WORC) as the primary measure for shoulder joint function, and Visual Analog Scale (VAS), Range of Motion (ROM), Pittsburgh Sleep Quality Index (PSQI), and Short Form 12 (SF-12) as secondary measures for pain, mobility, sleep quality, and quality of life.

Results

A total of 44 patients were enrolled, 23 in the plastic brace group and 21 in the sponge abduction pack group. At 3 weeks postoperatively, significant between-group differences were observed in abduction angle (78.5 ± 7.9 vs. 72.9 ± 7.2 , $P=0.02$), whereas WORC scores showed no statistical significance (90.1 ± 24.0 vs. 71.8 ± 29.1 , $P=0.22$). In subgroup analysis by gender, the difference in WORC score was statistically significant between sponge abduction pack and plastic brace groups in females (70.0 ± 29.1 vs. 100.7 ± 19.6 , $P=0.03$).

Conclusions

The use of a plastic brace instead of a sponge abduction pack after rotator cuff repair shows potential feasibility and results in a greater abduction angle in the early rehabilitation period. In addition, the plastic brace showed better clinical outcomes than the sponge abduction pack especially in females.



“Together,
We Can Go Further”

KSES 2026

The 33rd Annual
International Congress of the
Korean Shoulder and
Elbow Society

March
27(Fri) ~ 28(Sat), 2026
BEXCO, Busan, Korea

Figure & Table 1.

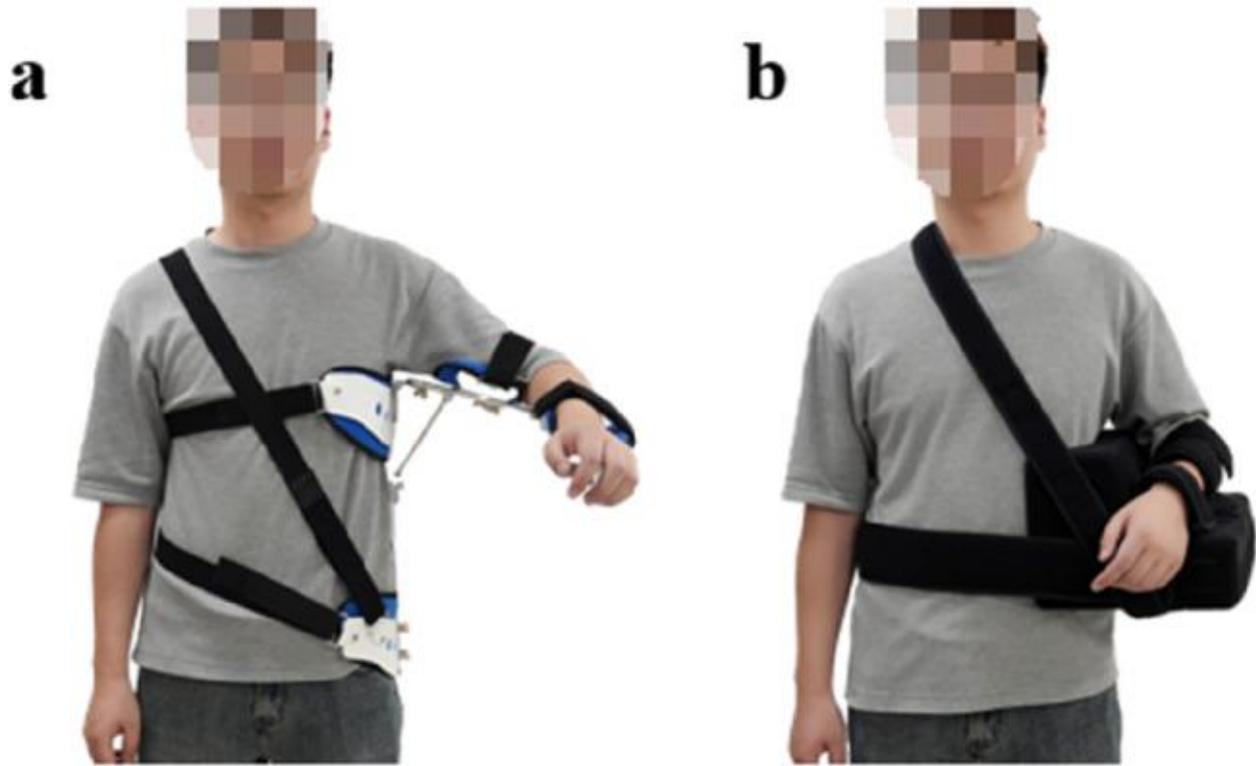


Figure & Table 2.

