

Impact Of Rotator Cuff Repair Surgery And Rehabilitation On Anxiety And Depression As Assessed By Hads And Montgomery Depression Scale And Its Correlation With Functional Outcomes

Prince Shanavas Khan, D' ORTHO, M.S. ORTHO, INDIA
Ayyappan V Nair, D'ORTHO, DNB ORTHO, INDIA
Kiran Veerendra Kumar, MS (ORTHO), MRCS (Edinburgh) INDIA
Aravind Rajan, MS ORTHO, DNB ORTHO, INDIA
Sreejith Thampy J, MS (ORTHO) INDIA
Bharath Bharadwaj, MS (ORTHO) INDIA



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Nothing to disclose





 Rotator cuff tears are debilitating, often requiring surgery to restore function and relieve pain, but their mental health impact is rarely studied

• Post op restriction on arm use unintentionally disrupts patients' lifestyles, resulting in functional limitations and dissatisfaction.

 Understanding mental health in recovery, sets expectations, as post-surgery anxiety and depression impact outcomes.

• We hypothesized that patients undergoing cuff repairs may experience anxiety and depression postoperatively, which may affect the functional outcomes.



• AIM: To Assess the prevalence of depression and anxiety symptoms post-cuff surgery and their effect on functional outcomes

Methodology

Guidelines Conducted following STROBE Guidelines.

• Prospective enrollment of patients undergoing rotator cuff repair surgery (February 2023 – February 2024).

Patient Selection & Surgical Procedure

Inclusion: All adult patients undergoing arthroscopic rotator cuff repair.

- Non-randomized study with consecutive patient enrolment upon consent
- Assessed Pre-op, 6 weeks, 3 months, 6 months, 9 months and 1 year





Assessment Tools

- Anxiety & Depression:
 - Hospital Anxiety and Depression Scale (HADS).
 - Montgomery and Åsberg Depression Rating Scale (MADRS).
- Functional Outcome:
 - American Shoulder and Elbow Surgeons (ASES) Score.
 - Quick Disabilities of the Arm, Shoulder, and Hand (Quick DASH) Score
- Statistical Analysis

Software: IBM SPSS (version 29)

Graphical Analysis

Matplotlib in Python (version 3.12.4).





Analysis and Results

Number of patients : 42

Average Age : 52.14 years

Q / Q

: 23 (54.76 %) / 19 (45.24 %)

Outliers : 3 (7.14%)



Depression and Anxiety Assessment

Hospital Anxiety and Depression Scale (HADS)

: 14-item questionnaire

Anxiety – 0-21 (7 questions)

Depression – 0-21 (7 questions)

Interpretation of HADS Score

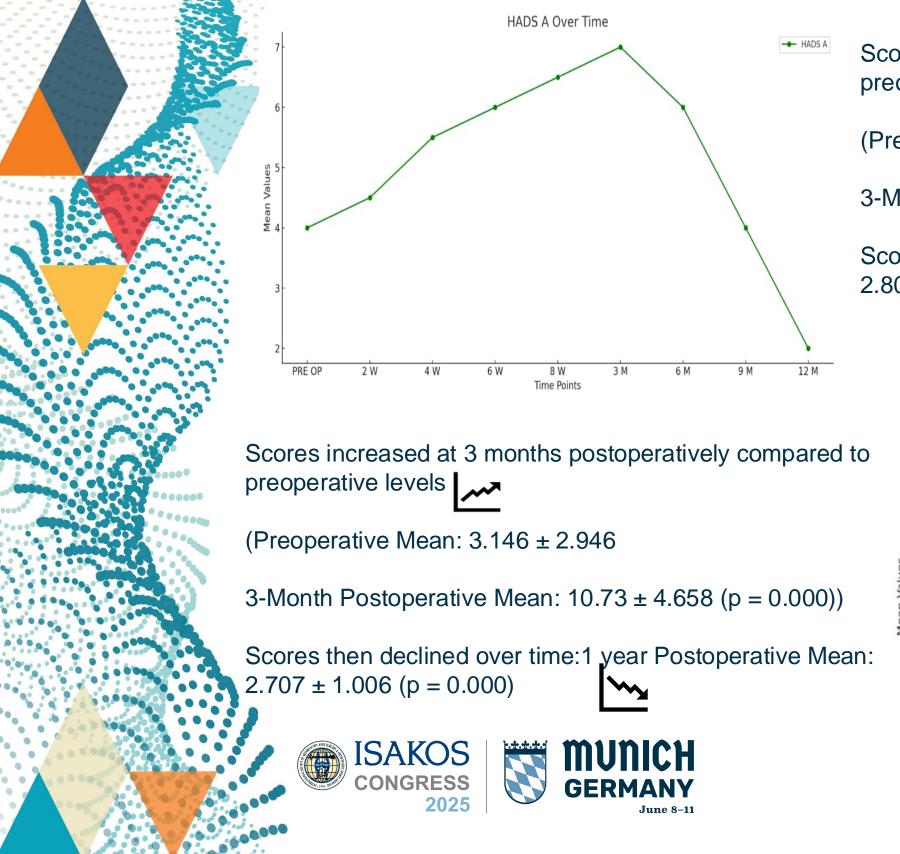
≤7: no depression or anxiety

• 8–10: Minor

• 11–15: Moderate

• ≥16: Severe





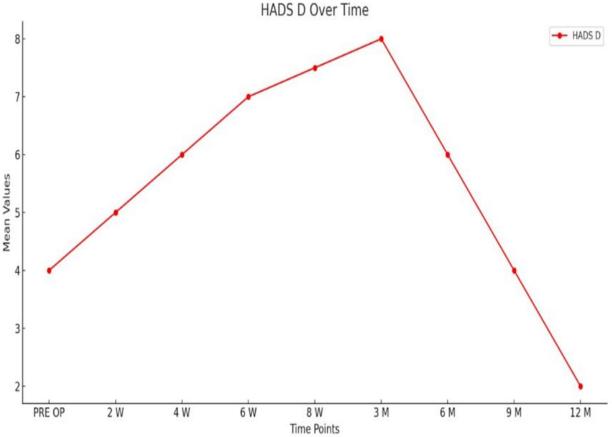
Scores increased at 3 months postoperatively compared to preoperative levels

(Preoperative Mean: 3.024 ± 2.970

3-Month Postoperative Mean: 10.05 ± 4.455 (p = 0.000))

Scores then declined over time: 1 year (Postoperative Mean:

 2.805 ± 1.077



Montgomery scale And Asberg Depression Rating Scale (MADRS)

10-item diagnostic Questionnaire (Total Score: /60) : 0 to 6: normal /symptom absent -

7 to 19: mild depression

20 to 34: moderate depression

35 to 60: severe depression

Preoperative Mean Score: 7.439 ± 3.115

3-Month Postop Mean Score: 12.05 ± 4.701 (p = 0.000) →

1 year Postop Mean Score: 5.024 ± 2.253 (p = 0.000) \rightarrow

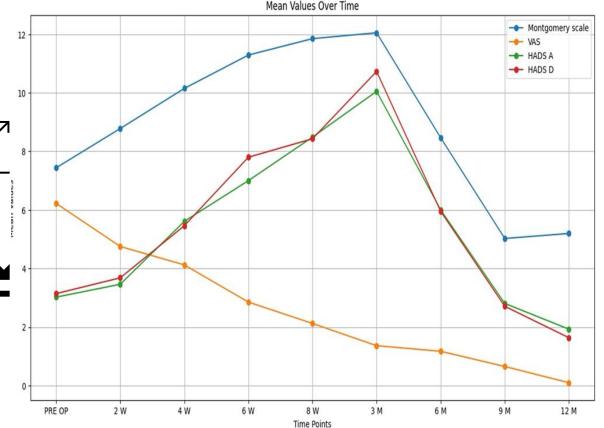


Overall trend

Initial increase at 3 months, followed by a steady decrease over time









Functional Assessment

Quick Dash score

Consists of 11 questions about physical function and symptoms.

Each question is scored from 1 (no difficulty) to 5 (severe difficulty).

The final score ranges from 0 to 100, where:

0 = No disability (better function)

100 = Severe disability (worse function)

American shoulder elbow surgeons score (ASES)

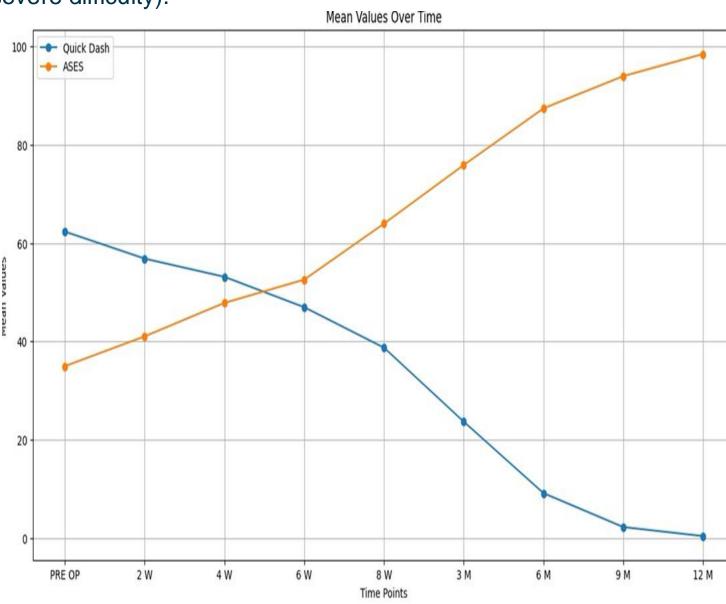
Based on pain(1 qns- max score 50) and functional assessment (10 qns – max score 50)

Scoring Interpretation:

- 0 = Worst shoulder function & severe pain
- 100 = Full function & no pain

ISAKOS

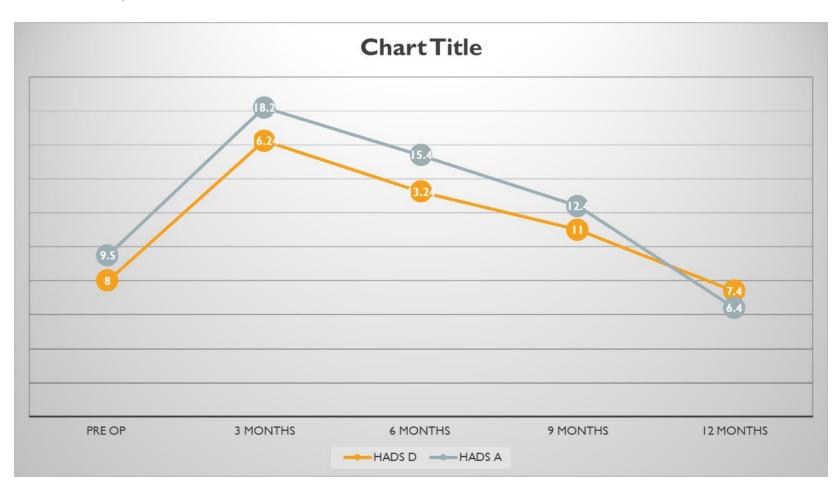




Outliers

Anxiety & depression peaked at 3 months post-surgery

gradually improved, returning to baseline by 9 months.







Discussion

Anxiety & Depression Trends

Increased during early rehabilitation.

Functional Outcomes vs. Mental Health

Functional improvement was independent of mental health changes.

Impact of Preoperative Mental Health

Higher revision rates & complications in patients with anxiety/depression.

Patients without mental health disorders had better PROM scores

Preoperative psychological screening may help improve recovery

Mental Health vs. Functional Improvement

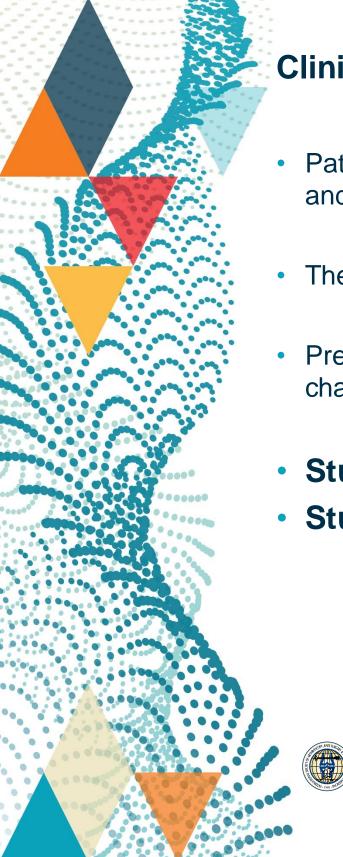
Anxiety & depression increased early but functional scores (ASES, QuickDASH) improved.

(Possible cause: Unmet patient expectations & delayed return to normal life.)

Long-Term Mental Health Outcomes

Only 1 patient (2.3%) had mild depression at 12 months.





Clinical Implications and Conclusion

• Patients undergoing rotator cuff repair face significant daily activity limitations due to healing time and arm immobilization.

These limitations can impact mental well-being.

• Preoperative education, supportive care, and psychological counseling may help manage these challenges during recovery.

Study Strengths: First to assess psychological response post-surgery

Study limitations: Small sample size (single-center study)



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