



Effect of expectations and concerns in rotator cuff disorders and correlations with preoperative patient characteristics

Joo Han Oh, MD, PhD^a, Jong Pil Yoon, MD, PhD^{b,*}, Jae Yoon Kim, MD, PhD^c,
Sae Hoon Kim, MD, PhD^a

^aDepartment of Orthopedic Surgery, Seoul National University College of Medicine, Seoul, South Korea

^bDepartment of Orthopedic Surgery, Kyungpook National University Hospital, Daegu, South Korea

^cDepartment of Orthopedic Surgery, Chung-Ang University College of Medicine, Seoul, South Korea

Hypothesis: Expectations and concerns affect the patient's postoperative improvement after rotator cuff surgery and are associated with preoperative functional status and sociodemographic factors of the patients.

Methods: We studied 128 patients who underwent rotator cuff surgery. Questionnaires regarding preoperative expectations and concerns were completed before surgery. The Simple Shoulder Test (SST), Constant-Murley score, and the Short Form 36-Item (SF-36) Health Survey were used to evaluate functional status.

Results: The mean expectation score was 4.59 of 5. "Relief from symptoms" generated the highest level of expectations (4.78), and the mean concern score was 1.75 of 4. The length of recovery (2.31) was the most concerning issue. Postoperative functional outcomes were significantly improved in the high-expectation group as measured by the SST ($P = .024$) and the Constant-Murley score ($P < .001$). In contrast, patients with higher levels of concern showed no significant differences in the SST or the Constant-Murley score. High expectations were associated with occupation, level, and route of information about the disease, and poorer preoperative functional status. High concerns were associated with female sex and a poor mental health status on the SF-36.

Conclusions: Patient expectations and concerns are related to postoperative improvements, and preoperative patient characteristics could be predictors of expectations (state of employment, higher level of information, informed by doctor, and a poorer preoperative functional status) and concerns (female and a poorer SF-36 Mental Component Summary score).

Level of evidence: Level II, Prospective Cohort Design, Treatment Study.

© 2012 Journal of Shoulder and Elbow Surgery Board of Trustees.

Keywords: Expectation; concern; postoperative outcome; sociodemographic data; rotator cuff repair

The human protocol for this investigation was approved by the Seoul National University College of Medicine, Seoul National University Bundang Hospital Investigational Review Board (IRB No. B-0506/021-008). All investigations were conducted in conformity with ethical principles of research.

*Reprint requests: Jong Pil Yoon, MD, PhD, Department of Orthopaedic Surgery, Kyungpook National University Hospital, 50 Samduk, Chung-Gu, Daegu 700-721, South Korea.

E-mail address: jpyoon@knu.ac.kr (J.P. Yoon).

Rotator cuff tear is a common disorder that causes pain and disability of the shoulder joint. The outcome of rotator cuff surgery is known to be affected by patient age,^{21,26} gender,^{1,4} smoking,¹² degree of injury,⁸ quality of the rotator cuff,¹⁹ degree of fatty degeneration,^{5,18} and re-tears.^{6,9}

Recently, a patient's psychologic state, such as expectations and concerns, have been found to be important

considerations for orthopedic surgery, because the patient's attitude and satisfaction might be determined by the patient.^{3,10,11,14,17} A previous study reported that patient expectations contribute to better postoperative outcomes as measured by self-assessed scoring systems in rotator cuff surgery.⁷ However, another potential contributing factor—preoperative patient concerns—have not been considered. Furthermore, little is known about the degree to which these are truly associated with a patient's personal characteristics, such as preoperative functional status and sociodemographic factors.

We sought to investigate the association between patients' expectations and concerns documented by a validated survey and postoperative improvement, and then determine how these were influenced by preoperative functional status and sociodemographic factors, such as the employment, life style, level of activity, and information received regarding their disease. We hypothesized that expectations and concerns affect the postoperative improvement of rotator cuff surgery and are associated with preoperative functional status and patient sociodemographic factors.

Methods

Demographics

All patients were diagnosed and operated on by the first author (J.H.O.) for rotator cuff disorders from May 2005 to April 2008. The inclusion criteria for the current study were (1) failure of at least 3 months of conservative management before rotator cuff surgery, (2) written consent to participate in this study, (3) intraoperatively confirmed full-thickness rotator cuff tear, and (4) patients whose preoperative evaluation and sociodemographic data were available.

Factors excluding patients from the study were (1) history of rotator cuff surgery, (2) other combined comorbidities of the shoulder, such as instability, inflammatory arthritis, rotator cuff arthropathy, or history of fracture, and (3) systemic comorbidities, such as dementia or depression, preventing patients from benefitting from rotator cuff surgery.

Of the 174 patients eligible for this study, 46 were excluded for the following reasons: postoperative outcomes had not been evaluated for 12 months or longer in 33, failure to complete questionnaire regarding concerns and expectation in 11, and a systemic infirmity in 2. Consequently, 128 patients (61 men, 57 women) were enrolled. Informed consent was obtained from all patients.

Patients were a mean age of 58.8 years (range, 40-77; standard deviation, 8.2 years). The degree of tear size measured during arthroscopic procedures was as follows: 38 were small (<1 cm), 50 were medium (≥ 1 to <3 cm), 18 were large (≥ 3 to <5 cm), and 22 were massive (≥ 5 cm).¹⁵ Associated disorders consisted of 49 patients with a superior labrum anteroposterior lesion (type I: 12, type II: 37), 48 with biceps disorders (44 partial, 4 complete tears), and 12 with acromioclavicular arthritis. The mean follow-up period was 13.7 months (ranging, 12-37 months).

Survey of expectations and concerns

All patients were prospectively studied by completing the questionnaires assessing their expectations and concerns with the questionnaires having been validated in previous studies.^{7,16,23,24} A blinded independent researcher administered the questionnaire to the patients. The questionnaire regarding preoperative expectations was based on the Musculoskeletal Outcomes Data Evaluation and Management System (MODEMS) scoring system²³ and included 6 items: (1) relief from symptoms (pain, stiffness, swelling, numbness, weakness, and instability), (2) to do more everyday household or yard activities, (3) to sleep more comfortably, (4) to go back to the usual job, (5) to exercise and participate in recreational activities, and (6) to prevent future disability.

The questionnaire of expectations used a 1- to 5-point Likert scale: "extremely likely" (5 points), "very likely" (4 points), "somewhat likely" (3 points), "slightly likely" (2 points), and "not at all likely" (1 point). The mean expectation score for each patient was obtained by averaging the individual points from each of the 6 items.

The questionnaire regarding preoperative concerns was derived and modified partially from a questionnaire used for previous studies^{16,24} that included 64 items (Appendix 1). The questions reflected concerns that could actually occur or what the patient believed might occur. The questionnaire of concerns used a Likert scale: "extremely worried" (4 points), "very worried" (3 points), "a little worried" (2 points), and "not worried at all" (1 point). The mean concern score for each patient was obtained by averaging the individual points from each of the 64 items.

Sociodemographic data and clinical evaluation

Sociodemographic data were collected prospectively by an independent researcher using a questionnaire. This questionnaire contained 10 dichotomized questions that addressed the following: (1) the residence location (urban or rural), (2) occupation (employed or unemployed), (3) the level of sports activity (high or low), (4) the level of shoulder usage during activities of daily living (high or low), (5) the willingness to change activities of daily living for rehabilitation (yes or no), (6) living with a spouse (yes or no), (7) religion (Christian or other), (8) history of previous operation except shoulder (yes or no), (9) the level of information about rotator cuff disease (high or low), and (10) the route through which information about rotator cuff disease was obtained (doctor or others).

During preoperative visits and at final follow-up visit, preoperative functional status and postoperative outcomes were evaluated by an independent researcher using 2 shoulder-specific assessment tools—the Simple Shoulder Test (SST),²⁰ a self-assessed outcome measurement, and the Constant-Murley score,^{2,22} an observer recorded outcome measurement—and the Short Form 36-Item (SF-36) Health Survey for assessing quality of life, consisting of 8 subscale scores (Physical Function, Role Physical, Bodily Pain, General Health, Vitality, Social Function, Role Emotion, and Mental Health) and 2 summary scores (Physical Component Summary and Mental Component summary).²⁵

Surgical procedure and rehabilitation

The first author (J.H.O.) conducted all surgical procedures. Operative technique was an arthroscopy-assisted miniopen repair

Download English Version:

<https://daneshyari.com/en/article/4074372>

Download Persian Version:

<https://daneshyari.com/article/4074372>

[Daneshyari.com](https://daneshyari.com)