

## The Evaluation of Patient Satisfaction Using Decision Regret Scale After Rheumatoid Arthritis Surgery to the Small Joints

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### Introduction:

The medical treatment of rheumatoid arthritis (RA) has greatly improved with the use of biological disease modifying anti-rheumatic drugs and targeted synthetic disease modifying anti-rheumatic drugs. Therefore, the numbers of patients with severely destructed bone and cartilage in affected joints have been decreased. On the other hand, there are many RA patients who hope to improve their quality of life (QOL) and activity of daily living (ADL). For this reason, small joint surgeries such as wrist/finger and forefoot joint surgeries in RA patients are still highly demanded.

The clinical significance of patient reported outcome (PRO) for the evaluation of post-operative outcomes after these surgeries has been increased. Although standard PRO such as Western Ontario and McMaster Universities Osteoarthritis Index (WOMAC) and self-administered foot evaluation questionnaire (SAFE-Q) has been widely used for these operative patients, some patients show the mismatch between their results of PRO and actual satisfaction.

To analyze this mismatch, we focused on the Decision Regret Scale (DRS) for the post-operative RA patients from another point of evaluation. DRS is a validated measurement to assess decisional regret after medical intervention. DRS has been evaluated in patients who underwent surgical treatments, but those reports are mostly from general surgeries. Besides, using the term “Regret” would help us understand what affects prevalence of dissatisfaction after small joint surgeries.

The objectives of this study were to evaluate patient satisfaction using DRS as well as identify factors associated with postoperative “Regret” after RA surgeries.

### Methods:

We evaluated a group of RA patients who underwent primary wrist/finger or forefoot joint surgery in our hospital with at least 1 year follow (wrist/finger: from 2017 to 2019 forefoot: from 2013 to 2021). One hundred fourteen surgeries (32 wrists/fingers in 29 patients; Group I, and 82 feet in 55 patients; Group II, both included duplicated cases) were participated in this study. Each group of patients answered to DRS and Visual Analog scale (VAS) which was used to assess patient satisfaction. Function, appearance, and total satisfaction was evaluated using VAS. DRS consists of 5 questions as follows. (1) It was the right decision (2) I regret the choice that was made (3) I would make the same choice again (4) The choice did me a lot of harm (5) The decision was a wise one. The each questions are added up to total score ranging from 0 to 100. Higher scores indicate higher levels of regret, and regret was defined as a DRS scores of  $\geq 50$  as previously reported.

The correlation between VAS and DRS was analyzed, then the characteristics of each evaluation method

were compared. Spearman's rank correlation was conducted to assess associations between VAS and DRS. P values less than 0.05 were considered statistically significant. The study protocol was approved by ethics committee of our university and the written informed consent was obtained from each patient.

### **Results:**

The mean value of DRS was 10.9 points in Group I and 16.3 points in Group II (n.s.). Only 3 wrists/fingers (9.7%) and 7 feet (8.5%) had score of 50 or more, which is assessed as "Regret". There was no statistically significant difference between VAS scores and Group I or Group II. In Group I, we found DRS had a significant inverse correlation with functional satisfaction and total satisfaction, however there was no correlation with appearance satisfaction (Figure1). In Group II a significant inverse correlation was observed between DRS and all the examined factors (Figure2).

### **Discussion and Conclusion:**

In this study, we found DRS had an inverse correlation with total satisfaction in both groups. Thus, DRS could be a useful measurement to assess patient satisfaction after small joint RA surgeries as previously reported in other general surgeries.

Although before the analyses of data from this study, we expected that the patients with wrists/fingers surgeries need equivalent clinical importance for the function and appearance, our data showed those patients expressed more clinical importance for the function than the appearance after surgery. On the other hand, for the patients with forefoot surgeries, we have expected the appearance was not required as functional improvement, but the results pointed out those patients showed equivalent clinical importance for the function and the appearance.

DRS was a useful PRO measurement to evaluate satisfaction after RA small joint surgeries, and also it had a capability to reveal patients' "Regret" which is sometimes difficult to understand from PRO. Additionally, in this study, DRS has pointed out what patients value the most differs depends on types of surgeries. This means it is important to focus on patient preference when we obtain consent for surgery, however, there could be differences according to each individual. In other words, improvement of patient satisfaction requires understanding of what each patient matters the most in surgical outcomes, and it would help reduce mismatches among PRO.

Figure1.

Group I ; Comparing DRS and VAS scores

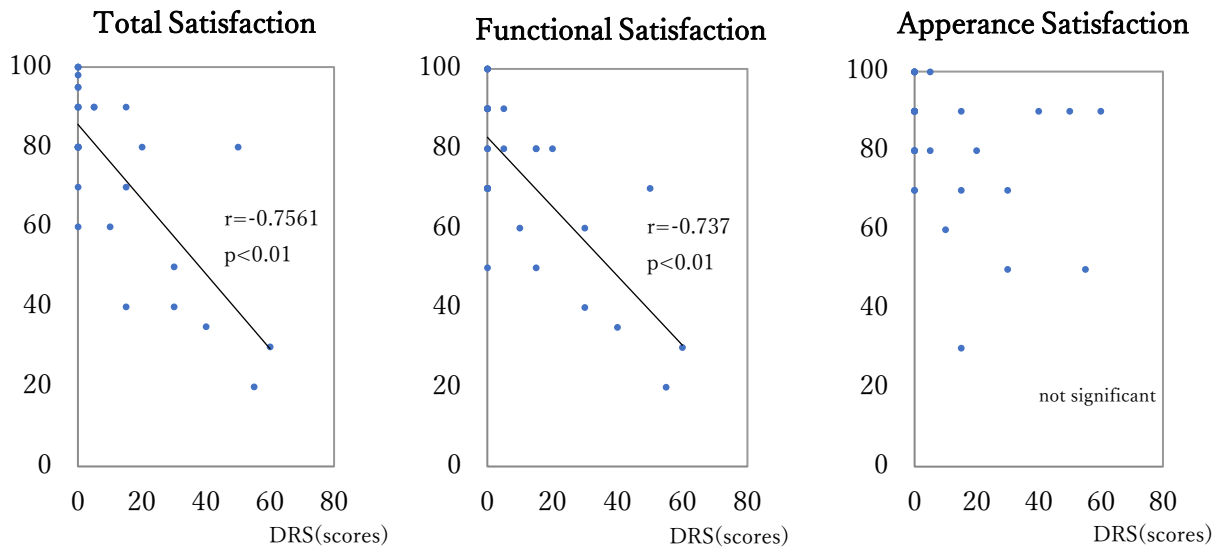


Figure2.

Group II ; Comparing DRS and VAS scores

