Ultrasonographic findings of tenosynovitis and tendonitis in the vollar surface of patients with early and late rheumatoid arthritis in patients referred to Imam Khomeini Hospital in Ardabil (2019 – 2020)

Abstract

Background: Rheumatoid arthritis is a type of chronic and systemic autoimmune disease that can lead to continuous inflammatory polyarthritis and continuous destruction of joints and loss of their function.

Aim: The aim of this study was to evaluate the sonographic findings of tenosynovitis and tendonitis in the vollar surface of patients with early and late rheumatoid arthritis in patients referred to Imam Khomeini Hospital in Ardabil.

Materials and methods: In the present cross-sectional study, 50 patients with rheumatoid arthritis who referred to the rheumatology clinic of Imam Khomeini Hospital in Ardabil during 2019 and 2020, were included in the study and were divided into two groups, less than and more than 3 months, based on the duration of diagnosis. Patients' demographic information, clinical and laboratory findings were entered in the checklist, then patients underwent vollar hand ultrasound and sonographic findings were recorded. After completing the study, the data was entered into SPSS software and subjected to statistical analysis.

Results: The onset of the first manifestation of the disease was under 3 months in 26% of patients and over 3 months in 74% of patients. 82% of patients were female. The mean age of patients was 50.7±11.8 years. There was no statistically significant difference between the sex and age of the patients in the two groups. The most common complaint of the patients was joint pain and the most common affected joint was the finger joints. Polyarthritis was the most common form of involvement. There was no significant difference in the intensity of rheumatoid arthritis pain in two groups. Sonographic evaluation identified tendonitis and tenosynovitis in both groups of rheumatoid arthritis less than and more than 3 months. Identification of tendonitis and tenosynovitis in both groups of rheumatoid arthritis less than and more than 3 months was not related to age group, gender, and time of disease onset.

Conclusion: Based on the results of this study, ultrasound seems to be a suitable method for evaluating tenosynovitis and tendonitis in the early stages of rheumatoid arthritis in both sexes and in both age groups under and over 50 years old. It also appears that patients with rheumatoid arthritis who present with higher ESR levels are more likely to demonstrate tenosynovitis on ultrasound.
Keywords: Rheumatoid arthritis, ultrasound, tendonitis, tenosynovitis.