

Relationship between pain and functional disability across disease duration in rheumatoid arthritis

R. H. S. Shashiprabha¹, I. Atukorala²

¹*Department of Allied Health Sciences, Faculty of Medicine, University of Colombo, Sri Lanka*

²*Department of Clinical Medicine, Faculty of Medicine, University of Colombo, Sri Lanka*

Rheumatoid arthritis (RA) is a chronic inflammatory, systemic autoimmune disease affecting approximately 1% of the global population. Pain and functional disability are features of the disease and its progression. This study aimed to identify the relationship between pain and functional disability across different disease stages [acute (≤ 3 months), sub-acute (3 months $<$), and chronic (≥ 3 years)]. This descriptive cross-sectional study was conducted at the Department of Rheumatology and Rehabilitation (DRR) of the National Hospital of Sri Lanka (NHSL) and the Rheumatology and Rehabilitation Hospital, Ragama (RRH). A total of 75 patients with RA were recruited and categorized into acute, sub-acute, and chronic stages, with 25 participants in each group. Pain severity was assessed using a Visual Analog Scale (VAS), and functional disability was evaluated using the Health Assessment Questionnaire-Disability Index (HAQ-DI). The data were analyzed using the Statistical Package for the Social Sciences (SPSS) version 22. Descriptive statistics and the chi-square test were used to analyze the data. The study found that pain intensity was higher during activities than at rest, with 52% (acute), 48% (sub-acute), and 60% (chronic) reporting moderate to severe pain during activities. At rest, mild to moderate pain was common (48% in acute and sub-acute, 40% in chronic). Most RA patients showed moderate to severe functional disability across all stages. A significant association was found between pain during activities and functional disability ($p < 0.05$), whereas pain at rest was not significantly associated with functional disability. Most RA patients experienced moderate to severe functional disability, with higher pain intensity during activities than at rest. Pain during activities was significantly associated with functional disability, while pain at rest had no effect. These findings underscore the significance of pain management and rehabilitation in preserving hand function and quality of life in patients with RA.

Keywords: *Disease duration (acute, sub-acute, chronic), Pain, Functional disability*