Section: Research Paper

Psychological affection in rheumatoid arthritis patients in relation to disease activity

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Abstract

Background: To study psychological affection in rheumatoid arthritis patients in relation to disease activity.

Materials & methods:A total of 60 subjects were enrolled. They were divided into two groups as group 1- rheumatoid arthritis and group 2- control group. Each group has 30 subjects. Chi-square test were used throughout to analyze correlation between disease activity scores and psychological signs, as well as significance of differences between RA patient group and their healthy counterparts; statistical significance was set at the conventional level of P value<.05. The analysis was done using SPSS software.

Results:RA patients found that 50% of patients had severe depressive symptoms (15 [50%] patients), while only 3 (10%) patients displayed mild symptoms and 6 (20%) patients had moderate symptoms. Italso shows that 20 (66.67%) patients had recurrent depression, another 20 had somatic symptoms, and 16 (53.33%) patients had anxiety.

Conclusion: Psychological manifestations are common in RA.

Keywords: rheumatoid arthritis, anxiety, depression.

Introduction

Rheumatoid arthritis (RA) is a chronic, symmetrical, inflammatory autoimmune disease that initially affects small joints, progressing to larger joints, and eventually the skin, eyes, heart, kidneys, and lungs. Often, the bone and cartilage of joints are destroyed, and tendons and ligaments weaken.[1] All this damage to the joints causes deformities and bone erosion, usually very painful for a patient. Common symptoms of RA include morning stiffness of the affected joints for > 30 min, fatigue, fever, weight loss, joints that are tender, swollen and warm, and rheumatoid nodules under the skin. The onset of this disease is usually from the age of 35 to 60 years, with remission and exacerbation. It can also afflict young children even before the age of 16 years, referred to as juvenile RA (JRA), which is similar to RA except that rheumatoid factor is not found.[2-5] In the West, the prevalence of RA is believed to be 1–2% , and 1% worldwide. [5-7]

Patients with RA rank pain as the most important symptom to be improved.[8,9] During the OMERACT sessions on patients' perspectives on outcome assessments, patients have reported that pain as well as other relevant outcomes should be addressed more extensively by researchers. This perspective of the patients is also supported by epidemiological data showing that the prevalence of depression in RA varies from 10% to 46%. [10-12] Although depression and anxiety are associated they are two separate mental dimensions that need different treatment approaches and therefore should be studied as two different entities.[13]Severity of RA is assessed using the disease activity score in 28 joints (DAS28), which is a composite score comprising clinician report of signs, patient self-report, and biochemical measures.[14] It was developed originally to enable the monitoring of RA

activity and is the standard measure used to gauge response to therapy. Anxiety and depression are higher in patients with chronic medical diseases than general population (15%–23% vs 6.6%). [15] Given that RA is a chronic disease, anxiety and depression are more common among patients with RA, compared with the general population (28%–44% vs 6.6%) and the condition has been associated with increased pain, fatigue, physical disability and healthcare costs, and overall reduced health-related quality of life.[15-17] They have poorer long-term outcomes, including increased pain, comorbidities, and mortality levels. [18] Hence, this study was conducted to study psychological affection in rheumatoid arthritis patients in relation to disease activity.

Materials & methods

A total of 60 subjects were enrolled. They were divided into two groups as group 1- rheumatoid arthritis and group 2- control group. Each group has 30 subjects. All patients were subjected to clinical evaluation (full history and examination), laboratory evaluation (erythrocyte sedimentation rate [ESR], C reactive protein [CRP] and rheumatoid factor [RF]), in addition to assessment of disease activity and outcome measures. Chi-square test were used throughout to analyze correlation between disease activity scores and psychological signs, as well as significance of differences between RA patient group and their healthy counterparts; statistical significance was set at the conventional level of P value<.05. The analysis was done using SPSS software.

Results

A total of 60 subjects were enrolled. RA patients found that 50% of patients had severe depressive symptoms (15 [50%] patients), while only 3 (10%) patients displayed mild symptoms and 6 (20%) patients had moderate symptoms. Italso shows that 20 (66.67%) patients had recurrent depression, another 20 had somatic symptoms, and 16 (53.33%) patients had anxiety. In the control group, on the other hand, only 3 (10%) subjects reported mild depressive symptoms, 3 (10%) had somatic symptoms, and 3 (10%) had anxiety symptoms. Psychological disorders were, therefore, more frequent among RA patients, compared to control subjects (P<.001).

Table 1: Comparison of psychological data in RA and control groups.

	RA patients (n, %)	Control group	p- value
Depressive symptoms			
Mild	4 (10)	3 (10)	0.0001*
Moderate	6 (20)	0 (0)	
Severe	15 (50)	0 (0)	
Recurrent depression	20 (66.67)	0 (0)	0.0001*
Somatic symptoms	20 (6.67)	3 (10)	0.0001*
Anxiety	16 (53.33)	3 (10)	0.0001*

Discussion

Clinically, the diagnosis of RA can be differentiated from osteoarthritis (OA) as the affected areas in RA are the proximal interphalangeal (PIP) and metacarpophalangeal (MP) joints; OA typically affects the distal interphalangeal (DIP) joint. OA is the most common type of arthritis and is caused by wear and tear rather than an autoimmune condition. It has no effects on the lungs, heart, or immune system. In addition, OA typically affects only one side of the body, as opposed to the symmetrical nature of RA. Another differentiating factor is that RA patients suffer from persistent morning stiffness for at least ≥1 h. Patients with OA may have morning stiffness, but this typically resolves or decreases within 20–30 min. [19,20] Hence, this study was conducted to study psychological affection in rheumatoid arthritis patients in relation to disease activity.

In the present study, A total of 60 subjects were enrolled. RA patients found that 50% of patients had severe depressive symptoms (15 [50%] patients), while only 3 (10%) patients displayed mild symptoms and 6 (20%) patients had moderate symptoms. Italso shows that 20 (66.67%) patients had recurrent depression, another 20 had somatic symptoms, and 16 (53.33%) patients had anxiety.A study by Hassan AA et al, studied to assess the relation between psychological factors (anxiety and depression) and disease activity (and severity) parameters in RA patients. Significance and regression analyses were performed to determine disease activity and severity predictors. 80% of RA patients had depression and 52% anxiety symptoms, while only 8% of healthy controls reported mild depression (P<.001). Data also found highly significant correlation between depressive symptoms and RA disease activity (P<.05). Psychiatric manifestations are common in RA and they strongly correlate with severity of the disease.[21]

In the present study, in the control group, on the other hand, only 3 (10%) subjects reported mild depressive symptoms, 3 (10%) had somatic symptoms, and 3 (10%) had anxiety symptoms. Psychological disorders were, therefore, more frequent among RA patients, compared to control subjects ($P<.001$). Another study by Odegard S et al,a cohort of 238 patients with RA (age 20–70 years, mean disease duration 2.3 years, 68% rheumatoid factor positive) was followed with assessments at baseline and after 1, 2, 5 and 10 years. Repeated measures analyses of variance were used to explore the effect of time on measures of outcome among completers, whereas repeated measures analyses using a mixed model were applied to identify factors that were longitudinally associated with pain, depression and anxiety. At the various assessment points 30% had a visual analogue scale pain score of ⩾40 mm, 5–13% had an AIMS depression score of ⩾4.0 and 20–30% had an AIMS anxiety score of ⩾4.0. The perceived level of pain was explained longitudinally by anxiety, disease activity, physical function and female gender, depression by high disease activity and anxiety, whereas anxiety was explained by low disease activity and depression.[22]Patients with RA also benefit from physical and occupational therapy. It is recommended that they perform exercise regularly to maintain joint mobility and strengthen the muscles around the joints. Movement exercises that are less traumatic for joints but good for muscle strength include swimming, yoga, and tai chi. Applying heat- and cold-packs before and after exercise minimizes painful symptoms. Studies are being done on different types of connective tissue collagen, to better understand and reduce RA disease activity. Lastly, with the scientific advancements and enhanced understanding of the molecular mechanisms, newer and better treatment options should become available in the near future. [23-25]

Conclusion

Psychological manifestations are common in RA.

References

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