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CONTENTS

EVALUATION OF DEPRESSION AND ITS CORRELATION WITH ANXIETY, QUALITY OF LIFE INDEX AND DURATION OF DISEASE IN PATIENTS WITH RHEUMATOID ARTHRITIS

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Abstract. *Background: Psychiatric disorders occur in a considerable proportion of patients with rheumatoid arthritis (RA), often reflecting the difficulties of these patients in coping with a chronic debilitating disorder.*

Aim of the study: We aimed to study Evaluation of depression and its correlation with anxiety symptoms, quality of life index and duration of disease in patients with rheumatoid arthritis.

Methods: Patients were defined as having RA and depression when there was at least one documented diagnosis identified by the International Classification of Diseases-10 (ICD-10) from the medical records. The proportion of depression was compared between RA patients and controls. A logistic regression model was used to estimate the association between RA and depression, anxiety disorder, quality of life index and duration of disease in a multivariate analysis adjusted for age, gender and socioeconomic status.

Results: The study included 120 patients with RA and 40 people without mental and somatic pathology. Depression in RA patients included mild depressive disorders (GA – 37.74%, GB – 4.48%), anxiety-depressive disorders (GA –28.30% GB – 41.79%), depressive-hypochondriac disorders (GA – 3.77%, GB – 20.90%). In multivariate analysis, RA was found to be independently associated with depression and anxiety.

Conclusion: Our study confirms the higher proportion of depression in RA patients: especially young women with average socioeconomic status (mild depressive disorders); old women with low socioeconomic status (depressive-hypochondriac disorders). The impairment of quality of life is markedly in patient with depressive-hypochondriac disorders. Physicians should be aware of such findings and, therefore, apply proper screening strategies.

Keywords: *Depression, anxiety, rheumatoid arthritis, quality of life index.*

Introduction

Rheumatoid Arthritis (RA) is a chronic progressive autoimmune disease, with a worldwide adult prevalence of 0.2–1.2 % [1]. Rheumatoid arthritis (RA) is characterized by chronic erosive arthritis of mainly small joints and internal organs. The disease is painful and progressive, leading to increasing levels of disability and systemic complications [2]. Rheumatoid arthritis is in 2-3 times more common in middle-aged women than in men. The spread of rheumatoid arthritis of women over 65 years old is about 5%. Several studies have identified depressive symptoms as an important aspect in RA. The prevalence of depressive symptoms in RA has been reported to vary between 6% and 65%, according to the screening methods used and to the samples studied. [3-5]. A recent review described a mean prevalence of 19% of depression among RA patients. Anxiety symptoms and disorders have been less studied separately, because they are a very frequent dimension of depression, making it difficult to separate anxiety symptoms from depressive ones [6].

Material and Methods

One hundred and twenty patients with a diagnosis of Rheumatoid arthritis, according to the criteria of International Classification Disease 10 (ICD), who attended clinics for follow-up visits between June 2011 and November 2016, were included in this study. The study was approved by the ethics committee of the hospital, and signed informed consents were obtained from patients. Group of control consisted of 40 people without mental and somatic pathology. Age- and sex-frequency matched controls.

Patients with a diagnosis of RA and aged between 20 and 60 years were included. Exclusion criteria were as follows: age less than 20 years and over 60 years, trauma and/or history of a severe heart failure, malignancy, additional connective tissue disease, previously diagnosed peripheral nervous system involvement.

According the studies, patients are inherited two groups. Group one (GA) included participants with duration of RA 1-5 years, group two (GB) included those with duration of RA 5-10 years and group three control (GC) included people without mental and somatic pathology. The remaining demographic variables, age, sex, education, relationship status, place of residence were comparable among the two basic groups and group of control.

Assessments

Mood status was evaluated using Hamilton Rating Scale for Depression (HRSD) and Hamilton Rating Scale for Anxiety (HRSA). HRSD and HRSA are both 35-questioned multiple-choice self-report inventories. For depression, 21 points and over are significant; for anxiety, 14 points and over are significant. Patient quality of life was assessed using the ten subscales of Quality of Life Index by Mezzich (QLI). Questions for each subscale were individually scored from 1 to 10 (0-10 points). Higher scores indicated the best quality of life.

Comparisons

Patients were compared according to the presence of the nonpsychotic mental disorders associated with duration of RA 1-5 years – group A (GA), with duration of RA 5-10 years – group B (GB) and group control (GC).

Statistical analysis

A two-step cluster analysis was performed using SPSS version 23.0 (Chicago, IL) to organize observations into two or more mutually exclusive groups, where members of the groups shared properties in common. Continuous variables were evaluated using the Kolmogorov-Smirnov test for whether or not they were different from normal distribution. Descriptive statistics are reported as mean±standard deviation for continuous variables and frequencies and percentages (%) for nominal variables using chi-square test. Significance of the differences between the groups was investigated using the Mann-Whitney U test. Logistic regression analysis was used to determine significant correlation. $P<0.05$ indicated statistical significance.

Results

Of total, 120 patients, 91 were female (75.3%) and 19 were male (15.7%); the mean age was 47.51±8.71 years; group control: 33 were female (82.5%) and 7 were male (17.5%); the mean age was 27.78±6.38 years. The demographic features of patients are shown in Table 1.

Table 1. Demographic features of patients

Parameters	GA	%	GB	%	GC	%
N	53		67		40	
Age (year)	45.79±8.35		49.22±9.12		27.78±6.38	
Sex						
male	8	15.09	11	16.42	7	17.5
female	35	84.91	56	83.58	33	82.5
Marital status						
Married	32	60.38	39	58.21	10	25
Single	11	20.76	8	11.94	26	65
Divorced	2	3.77	3	4.48	2	5
Widow	8	15.09	17	25.37	2	5
Educational status						
Primary school graduates	11	20.76	16	23.88	8	20
Secondary school graduates	5	9.43	4	5.97	12	30
College graduates	24	45.28	33	49.25	17	42.5
University graduates	13	24.53	14	20.90	3	7.5
Place of residence						
City	23	43.40	22	32.84	25	62.5
Village	24	45.28	42	62.68	12	30
Urban village	6	11.32	3	4.48	3	7.5
Socioeconomic status						
High	5	9.43	7	10.45	12	30
Average	43	81.14	49	73.13	26	65
Low	5	9.43	11	16.42	2	5

In group A depression included mild depressive disorders (37.74%), anxiety-depressive disorders (28.30%), depressive-hypochondriac disorders (3.77%); in group B – mild depressive

disorders (4.48%), anxiety-depressive disorders (41.79%), depressive-hypochondriac disorders (20.90%). The depression characteristics in group A and B are presented in Table 2.

Table 2. Relationship between duration of RA and depressive disorders.

Parameters	GA	%	GB	%
N	53		67	
Mild depressive disorders	20	37.74	3	4.48
Anxiety-depressive disorders	15	28.30	28	41.79
Depressive-hypochondriac disorders	2	3.77	14	20.90
Other mental disorders	16	30.19	22	32.83
Total	53	100	67	100

Quality-of-life (QoL) health status refers to "dimensions" that are specific and directly related to health conditions, excluding environmental factors, income, beliefs and freedom [7]. Patient quality of life was assessed using the ten subscales of Quality of Life Index by Mezzich (QLI): physical well-being, psychological / emotional well-being, self-service and independence of actions, ability to work, interpersonal interaction, social and emotional support, public and official support, personal implementation, spiritual realization, the general perception of the quality of life The impairment of quality of life is markedly in patient with depressive-hypochondriac disorders.

Discussion

We found that most common factors for disease flare in patients with RA were psychological stress, marital status (widow) and other chronic somatic disease, socioeconomic status. Depressive disorders have close pathogenesis interrelations with RA. Depressive disorders had association anxiety and fatigue [8]. In humans, fatigue is more central than peripheral, as well as being more psychological than physiological and thus is very difficult to quantify [9, 10]. The fatigued individual cannot handle complex problems and tends to be less reasonable in everyday life and to exhibit inferiority complex, anxiety and depression [11, 12]. Studies on depression in RA have shown that patients consider their depression frustrating and exhausting and that it is much more related to pain intensity, anxiety and insomnia than to the inflammation itself and activity RA [13]. The emergence of depressive symptoms in RA patients is not only related to subjective suffering and physical limitations caused by the disease. In this context, it is plausible that a neuroimmunobiological mechanism, among other possible factors, could be associated with the development of depressive symptoms [14].

Conclusion

Our study confirms the higher proportion of depression in RA patients: especially young women with average socioeconomic status (mild depressive disorders); old women with low socioeconomic status (depressive-hypochondriac disorders). The impairment of quality of life is markedly in patient whith depressive-hypochondriac disorders. Physicians should be aware of such findings and, therefore, apply proper screening strategies.

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