



ORIGINAL RESEARCH PAPER

Psychiatry

PREVALENCE OF ANXIETY AND DEPRESSION IN RHEUMATOID ARTHRITIS PATIENTS AND COMPARISON WITH CONTROL GROUP- A CASE CONTROL STUDY

KEY WORDS: Rheumatoid Arthritis, Anxiety, Depression

Dr. Sandeep Choudhary

Prof. and Head, Department of Psychiatry, Subharti Medical College, Meerut, U.P- 250001

Dr. Arti Tyagi*

Resident, Department of Psychiatry, Subharti Medical College, Meerut, U.P- 250001, *Corresponding Author

Dr. Vivek Kumar

Assistant Prof. Department of Psychiatry, Subharti Medical College, Meerut, U.P- 250001

Dr. Sandeep Grover

Associate Prof. Clinical Immunologist, Department of Medicine, Subharti Medical College, Meerut, U.P- 250001

ABSTRACT

Objective: To study the prevalence of anxiety and depression in Rheumatoid Arthritis patients and to compare with control group.
Methodology: Cross-sectional, case-control study of 40 patients with Rheumatoid Arthritis and 40 controls constituted the sample of study which was conducted at Subharti Medical College, Meerut. Hamilton anxiety rating scale (HAM-A) and Hamilton Depression rating scale (HRDS) were used to assess anxiety and depression.
Results: In our study Rheumatoid Arthritis patients scored more on Hamilton's Anxiety Rating and on Hamilton Depression Rating Scale, 30% cases had anxiety disorder and 37.5% cases had depression and among controls only 5% showed anxiety and none of the individual showed depressive symptoms. We did not find any relation between duration of Rheumatoid arthritis and anxiety / depression.
Conclusion- We found higher prevalence of anxiety and depression in the Rheumatoid Arthritis group than the control group. A closer liaison between rheumatologists and mental health professionals is needed.

INTRODUCTION

Rheumatoid arthritis (RA) is a common physical disorder having a prevalence of 0.3 – 2.1 % in the general population.¹ 21 % of patients with RA have been reported to suffer from neuropsychiatric disorders.^{2,3}

RA can influence all aspects of one's life, like social and work relationships, family life, and psychological well-being in addition to physical symptoms⁴⁻⁵. In addition to these stressors, pain, physical handicaps, and restriction of activities are associated with changes in psychological state and result in anxiety, depression, and a feeling of helplessness⁶.

The main psychiatric disorders reported in RA cases are depression, anxiety, and both⁷⁻¹⁰. Depressive complaints in these situations are closely related with poor health¹¹. In fact, depression is a treatable condition, and pharmacotherapy alone has been reported to have a success rate of more than 70%¹². These data suggest that it is necessary to screen the presence of depression in RA cases and to treat it, if present.

The presence of psychiatric disorders in RA cases alters the progress of the disease and adaptation to the treatment¹³, whereas the improvement of the psychiatric disorders increases success of the RA treatment^{14,15}.

AIMS AND OBJECTIVES

AIM- To study psychiatric morbidity in adult patients with rheumatoid arthritis in and around Meerut and to compare with a normal control group.

OBJECTIVES-

- 1) To study associated Anxiety and Depression in Rheumatoid Arthritis patients.
- 2) To study socio-demographic variables of RA patients.
- 3) To compare the above parameters with control group.

MATERIALS AND METHOD To fulfill the above aims and objectives a study was conducted in the outdoor Rheumatology Unit of Department of Medicine, Subharti Medical College,

Meerut. Study topic was selected and a protocol was designed initially. Before starting the study, approval of ethical committee was taken. For sample collection Rheumatology OPD was attended weekly for 1 year. All 80 Subjects were selected by simple random sampling. Hamilton's depression rating scale, Hamilton's Anxiety Rating Scale were administered on the patients to find out the prevalence of anxiety and depression in both cases and controls.

Inclusion Criteria for Cases- Patients of RA and age group 18-60 years

Inclusion Criteria for Controls- Individuals without RA and age group 18-60 years.

Exclusion Criteria for Cases and Controls- Individual suffering from any chronic physical illness and with intellectual disabilities.

RESULTS

Table-1. Distribution according to age

AGE GROUP (IN YEARS)	CASES		CONTROLS	
	N=40	(n%)	N=40	(n%)
18-40	14	(35 %)	25	(62.5 %)
40-60	26	(65 %)	15	(37.5 %)

- Majority of the patients among cases belonged to 40-60 years of age and with mean age group 44.7 ± 9.4 years.
- Majority of controls belonged to 18-40 years of age, with the mean age group 36.82 ± 9.9 years.

Table 2. Distribution according to Sex

SEX	CASES		CONTROLS	
	N=40	(n%)	N=40	(n%)
MALE	5	(12.5 %)	10	(25 %)
FEMALE	35	(87.5 %)	30	(75 %)

- Most of the patients among cases were females (87.5%) & rest (12.5%) were males and
- Among controls 75% were females and 25% were males.

Table-3 Distribution according to Socioeconomic Class

SES	CASES		CONTROLS	
	N=40	(n%)	N=40	(n%)
UPPER	0	(0%)	0	(0%)
UPPER MIDDLE	4	(10%)	2	(5%)
LOWERMIDDLE	11	(27.5%)	10	(25%)
UPPER LOWER	9	(22.5%)	10	(25%)
LOWER	16	(40%)	18	(45%)

Most of the cases belonged to lower class and most of individuals among controls also from lower

Table -4 Distribution of Cases On The Basis of Duration of Rheumatoid Arthritis

DURATION OF RA	CASES	N=40	n (%)
< 2 YRS(EARLY)	3		(7.5%)
2-10 YRS(ESTABLISHED)	30		(75%)
> 10 YRS(ADVANCE)	7		(17.5%)

- Among cases 7.5% patients belonged to early rheumatoid arthritis,
- 75% belonged to established arthritis and
- 17.5% belonged to advance rheumatoid arthritis.

Table – 5 Simple Disease Activity Index in RA Patients

SDAI	CASES N=40,	n(%)
REMISSION (0.0 - 3.3)	0	(0%)
LOW ACTIVITY (3.4 - 11)	8	(20%)
MOD. ACTIVITY (11.1 - 26.0)	23	(57.5%)
HIGH ACTIVITY (26.1 - 86.0)	9	(22.5%)

- 20% cases are falling under low disease activity
- 57.5% presented with moderate disease activity and
- 22.5% presented with high disease activity on SDAI scoring

Table –6 Distribution of Cases and Controls on the basis of HAM-A (Hamilton Anxiety Rating Scale)

HAM-A	CASES		CONTROL	
	N=40	(n%)	N=40	(n%)
Mild	12	(30%)	2	(5%)
No anxiety	28	(70%)	38	(95%)

Chi square =8.658 df=1 P <0.003 (significant)

Table – 7 Distribution of Cases and Controls on the basis of HDRS (Hamilton Depression Rating Scale)

HDRS	CASES N=40, (n%)	CONTROLS N=40, (n%)
MILD	12 (30%)	0 (0%)
MOD.	3 (7.5%)	0 (0%)
NO DEPRESSION	25 (62.5%)	40 (100%)

Table – 8 Relation between Duration of Rheumatoid Arthritis and Anxiety

DURATION OF RA	ANXIETY PRESENT		ANXIETY ABSENT	
	N=12	(n %)	N=28	(n %)
< 2Years	2	(16.7 %)	1	(3.6 %)
2- 10 Years	10	(83.3 %)	20	(71.4 %)
> 10 Years	0	(0.0 %)	7	(25.0 %)

Chi square =5.079 df=2 P <0.079 (Not significant)

Table –9 Relation Between Duration Of Rheumatoid Arthritis And Depression-

DURATION OF RA	DEPRESSION PRESENT		DEPRESSION ABSENT	
	N= 15	(n%)	N=25	(n%)

< 2Yrs	1	(6.7 %)	2	(8.0%)
2- 10 Yrs	9	(60.0 %)	21	(84.0%)
> 10 Yrs	5	(33.3 %)	2	(8.0 %)

Chi square =4.180 df=2 P <0.124 (Not significant)

DISCUSSION

We applied Hamilton Anxiety Scale in all individuals including both cases and controls to see and compare the level of anxiety in both groups. It can be observed from the table-6 that 30% cases were suffering from mild anxiety and among controls only 5% were suffering from mild anxiety. Chi square test was applied and found to be 8.658 with df= 1, the p value 0.003, which was significant. It can be observed from the table-7 that 30% cases had mild depression, 7.5% had moderate depression and rest 62.5% showed no depression. None of the individual among controls showed depression on Hamilton Depression Rating scale.

In a study by Isik et al¹⁶ Total prevalence of anxiety, depression, and mixed anxiety-depressive disorder was found as 70.8% (n=58) in the patient group and 7.3% (n=3) in the control group, and the difference was significant (p<0.001). Similarly in one more study by Jamshidi et al¹⁷ observed various degree of anxiety in 84.1% of RA patients. Mixed anxiety and depression was present in 60.2% of RA patients.

It can be observed from table-8 that among all cases, who had anxiety, 16.7% had RA for less than 2 years and 83.3% had RA for 2- 10 years. Chi square test was applied and found to be 5.079 with df=2. The p value was less than 0.079, which was not significant, suggesting that anxiety is independent of the duration of RA.

Table-9 shows that among all cases, who had depression, 6.7% had RA for less than 2 years and 60% had RA for 2- 10 years and 33.3% had RA for more than 10 years. Chi square test was applied and found to be 4.180 with df = 2. The p value was less than 0.124, which was not significant, suggesting that depressive disorder is independent of the duration of RA. In contrast to our study Isik et al¹⁶ observed that The disease duration was positively correlated with the degree of depression and negatively correlated with the degree of anxiety^{*} = 0.341, p< 0.05; r=-0.642, p<0.05, respectively

CONCLUSIONS- In our study we found higher prevalence of anxiety and depression in the RA group than the control group. We did not find any relation between duration of Rheumatoid arthritis and anxiety / depression. A closer liaison between rheumatologists and mental health professionals is needed.

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