Rheumatoid Arthritis (RA): A Study of Psychological Symptoms in Relation to Various Disease Parameters

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The present study attempted to investigate the correlation of psychological symptoms in RA patients with the different parameters of the disease. The sample consisted of 100 patients, including 60 rheumatoid arthritis (RA) patients and 40 patients with osteoarthritis (OA) of the knees as a comparative group, and represented newly diagnosed as well as chronic patients in different classes and stages of the disease. Thorough history taking, examination and investigations were done. The Arabic version of Symptom Check List-90-Revised (SCL-90-R) was used as a part of the psychological and psychiatric assessment of the patients. The findings showed that disability was the RA disease parameter that correlated mostly with depression, followed by the ESR, disease severity, duration, seropositivity and pain were not significantly correlated with any psychological factor. These findings were discussed in the light of the recent literature.

(Egypt.J. Psychiat.,1994, 17:203-219).

Introduction

Despite being classified as a psychosomatic disease for more than 100 years (Kaplan, 1989), there is still controversy over whether RA is or is not a psychosomatic disease (Baker and Brewerton, 1981). Major textbooks of psychiatry still list RA a psychosomatic disease (Ananth, 1989), while the textbooks of rheumatology deny such an inclusion or doubt it (Bayles, 1966; Liang, 1989). Shaheen *et al.* (1987) gave evidence for the psychosomatic nature of RA and stressed the major role of psychological factors in the onset and course of the disease. They also found a higher level of psychopathology by psychometry and a higher percentage of diagnosable psychiatric disorders.

The DSM-III-R (APA, 1987) classified RA among "psychological factors affecting physical conditions", where psychologically meaningful environmental stimuli are significantly - albeit partially - and temporally related to the initiation or exacerbation of a specific physical condition or disorder. Such a term may be preferable to

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"psychosomatic" since it recognizes that psychological factors may only play a partial role in the causation of RA which is a multifactorial disease.

Shaheen *et al.* (1987) found evidence of a psychiatric disorder in 62.8% of 43 RA patients by clinical interview 23.3% had depressive neurosis, 18.6% situational neurosis and 16.3% anxiety neurosis), while Abdel-Azim *et al.* (1987) by personal interview and using DSM-III criteria for diagnosis found that 55% of 20 RA patients had depression either as adjustment disorder, dysthymic affective disorder or that of adolescence.

When RA patients where compared to other rheumatological and non-rheumatological chronic patients, there was again disagreement between results. Wolfe *et al.* (1984) found a lower incidence of psychiatric symptoms in RA patients (16%) than in fibromyalgia (37%) as assessed by the MMPI. They also showed that fibromyalgia, but not RA patients , showed elevation in the anxiety and depression scales of AIMS. Piergiacomi *et al.* (1989) found that RA patients had lower incidence of depression than fibromyalgia patients as assessed by the centre for epidemiologic studies, while they were not different from patients with other organic diseases, while Ahles *et al.* (1991) found no group differences between RA, fibromyalgia and normal subjects in any psychiatric disorders including major depression, anxiety or somatization disorders. Abd El-Azim *et al.* (1987) also found that although 20 RA patients had increase in depression, somatization and obsession to pathological levels by the Middlesex Hospital Questionnaire, there was no significant difference from 22 osteoarthritic patients.

Blalock and De Vellis (1992) stated that estimating the prevalence of depression in RA is complicated by the overlap between depressive symptoms and physical manifestations of the disease process and concluded that, in studies adequately assessing depression independent of physical health status, the prevalence was 20% which is similar to other chronic illnesses but is three times greater than rates for general community samples.

Aim of the Present Study:

This study attempted to investigate the correlation of psychological symptoms in RA patients with the different parameters of the disease.

Subjects and Method

100 patients, including 60 rheumatoid arthritis (RA) patients and 40 patients with osteoarthritis (OA) of the knees as a comparative group, were recruited from the Rheumatology and Rehabilitation outpatient clinics of EL-Minia and Cairo University Hospitals during the period from January to December, 1992. This study sample represented newly diagnosed patients as well as chronic patients in different classes and stages of the disease.

Criteria for diagnosis of RA patients were the American Rheumatism Association (ARA, 1987) criteria (Arnett *et al.*, 1988). While criteria for diagnosis of OA of the knees were the clinical and radiographic criteria developed by Altman *et al.* (1986).

Exclusion criteria for all patients included the presence or history of any chronic or disabling physical or mental condition.

All cases were submitted to a detailed history including demographic data; history of present illness, including brief psychiatric history, past history of relevant diseases, and family history of RA, OA, psychiatric, hereditary, or serious medical illnesses.

Thorough examination was done. It included general examination; locomotor system examination, as recommended by Cushnaghan *et al.* (1990); Ritchie Articular Index (RAI) for assessment of articular tenderness (Ritchie *et al.* 1968); grip strength (Spiegel *et al.*, 1988); and psychiatric examination for selected patients who showed symptoms on history taking suggestive of a specific psychiatric diagnosis.

All cases were investigated for: Erythrocyte Sedimentation Rate (ESR); Rheumatoid Factor (RF); Complete Blood Count; X-ray of the hands and *most severely affected joints*; Assessment of pain by the Numerical Rating Scale (NRS) described by Ferraz *et al.* (1990); assessment of activity by the Index of Disease Activity (IDA), developed by Mallya and Mace (1981); assessment of severity using the ARA anatomic classification of Steinbrocker *et al.* (1949) which is still widely used (Gall, 1988) despite being over 35 years old (Gall, 1988 and El-Badawy *et al.*, 1989); assessment of disability using the ARA functional classification and the Disability Index of the Stanford Health assessment Questionnaire (HAQ-DI) originally deviced by Fries *et al.* (1980); and psychological assessment by the Symptom Check List-90-Revised (SCL-90-R), the Arabic version (El-Behairy, 1984).

Results

(A) Disease Related Characteristics

1- Age at Onset, Disease Duration, Past and Family History:

The age at onset and disease duration in RA as compared to OA patients are shown in table (1).

The age at onset in RA Patients ranged from 16 to 57 years with a mean of 33.39± 11.63, while OA patients' age at onset ranged from 29.5 to 82 years with a mean of 44 ± 9.73. The minimum age for OA patients was low due to the inclusion of patients with secondary OA of the knees in the hope of decreasing the well-known age difference. Nevertheless, the age difference showed a very highly significant increase in OA patients (P< 0.001).

On the other hand, disease duration was more or less equivalent in the two groups with a similar range of 6 weeks to 20 years, and a mean of 6.34±5.42 years in RA patients and 5±4.5 years in OA patients. There was no statistically significant difference between the two groups as regards disease duration.

The past and family history of medical conditions in RA as compared to OA

Table I

Age at Onset and Disease Duration in RA and OA patients

Variable		Rheumatoid Arthritis N = 60	Osteoarthritis N = 40	Difference T	P value
- Age at onset (years)	Range	16-57	29.5 - 72		
	Mean±S.D.	33.39±11.63	44±9.73	4.8	<0.001
- Disease duration (years)	Range	0.12-20	0.12-20		
	Mean±S.D.	6.34±5.42	5±4.5	1.3	0.1 (NS)

NS = Nonsignificant

Table 2
Past and Family History of Medical Conditions in RA and OA Patients

Variable		Rheumatoid Arthritis N = 60	Osteoarthritis N = 40	Difference X2	P value
- Past history of medical conditions					
	Positive	14 (23.3%)	6 (15%)	0.3 (NS)	
	Negative	46 (76.7%)	34 (85%)		
- Family history of medical conditions					
	Positive	7 (11.7%)	8 (20%)	0.39 (NS)	
	Negative	53 (88.3%)	32 (80%)		

NS=Nonsignificant

Table 3
Disease Activity Parameters in RA Patients (N = 60)

Parameter	Range	Mean±SD	Median
Ritchie Articular Index	1-61	28.25±13.13	28
Grip strength (mm Hg)	8-140	60±35.62	45
Morning stiffness (minutes)	0-360	65.3±89.47	30
ESR (mm/hr)	5-115	50.17±29.9	44.5
Pain Scale (0 - 10)	1-10	6.32±2.27	6
Index of Disease Activity (1 - 4)	1.4-3.8	2.86±0.51	3

Table 4
Distribution of RA Patients According to Radiological Stage of Severity

Stage	I	II	III	IV	Total
No (%)	10 (16.7%)	16 (26.7%)	23 (38.3%)	11 (18.3%)	60 (100%)

Table 5
Rheumatoid Factor Positivity in RA and OA Patients

Parameter	Rheumatoid Arthritis N = 60		Osteoarthritis N = 40		X^2	Differen P value
Rheumatoid factor	positive	Negative	Positive	Negative		
Number (%)	53(88.3%)	7 (11.7%)	2 (5%)	38 (95%)	67.3	<0.001

Table 6
Disease Outcome Parameters in RA and OA patients

Parameter		Rheumatoid N = 60	Osteoarthrit. N = 40	Difference Test	P value
Pain	Range	1-10	0-10		
(0 - 10)	Mean±S.D.	6.32±2.27	5.23±2.24		
	Median	6	5	U = 947.5	(NS)
Disablity	Range	0-2.89	0-1.2		
Index	Mean ± S.D.	1.32±0.83	0.44±0.28		
(0 - 3)	Median	1.29	0.44	U = 439	<0.001
Functional	Grade I	6 (10%)	26 (65%)		
	Grade II	32 (53.4%)	14 (35%)	X^2 = 39.1	<0.001
	Grade III	20 (33.3%)			
	Grade IV	2 (3.3%)			

NS= Nonsignificant

patients is shown in table (2) from which it is apparent that though RA patients had a higher incidence of positive past history and a lower incidence of positive family history, the differences were not statistically significant.

(2) Disease Activity:

The range, mean and standard deviation of the Index of Disease Activity (IDA) of Mallya and Mace (1981) and its 5 components in RA patients are shown in table (3). Since the parameters of disease activity were non-normally distributed in the patients, the median is also shown.

From the table, it can be seen that our sample of RA patients represented various grades of activity, but the average patient was in moderate activity (median IDA = 3 / 4, mean ESR = 50 mm / hr).

(3) Disease Severity:

Disease severity in RA patients was judged by radiological staging, Rheuma-

Table 7
Psychological Profile of RA Compared to OA Patients as Determined by the SCL-90-R

SCL-90-R Scale		Rheumatoid Arthritis N = 60	Osteoarthritis N = 40	Difference U	P value
Somatization	Range	2-35	1-37		
	Mean±SD	16.92±7.81	13.78±9.12	892	0.03
	Median	16.5	12		
Obsessive	Range	1-27	2-33		
Compulsive	Mean±SD	13.57±6.83	13.15±6.82	1138.5	0.66 (NS)
	Median	13.5	12		
Interpersonal	Range	0-34	0-32		
Sensitivity	Mean±SD	14.17±7.66	11.48±6.95	895	0.03
	Median	15	10.5		
Depression	Range	5-43	2-38		
	Mean±SD	22.62±9.28	16.2±7.85	713.5	0.0006
	Median	23	14.5		
Anxiety	Range	0-29	0-31		
	Mean±SD	9.98±6.12	8.75±6.65	1020.5	0.21 (NS)
	Median	9	8		
Hostility	Range	0-20	0-17		
	Mean	6.43±4.35	5.18±4.12	991	0.14 (NS)
	Median	6	4.5		
Phobic	Range	0-24	0-25		
Anxiety	Mean±SD	6.95±6.57	4.93±4.47	1044.5	0.27 (NS)
	Median	5	4		
Paranoid	Range	0-15	0-23		
Ideation	Mean±SD	4.85±4.53	4.73±4.81	1169	0.83 (NS)
	Median	4	4		
Psychoticism	Range	0-26	0 - 19		
	Mean±SD	4.82±5.51	4.35±3.62	1120	0.57 (NS)
	Median	2	4		
Distress	Range	12-211	23 - 207		
	Mean±SD	100.3±45.5	82.6±42.11	905	0.04
	Median	102.5	76.5		

NS= Nonsignificant

Table 8
Spearman Rank Correlation Coefficients of Age at Onset and Disease Duration with Scales of the SCL-90-R in RA patients (N= 60)

SCL-90-R Scale	Age at Onset	Disease Duration
Somatization	*-0.26	0.18
Obsessive-compulsive	-0.20	0.16
Interpersonal sensitivity	-0.07	0.04
Depression	-0.04	0.03
Anxiety	-0.15	0.01
Hostility	-0.24	0.01
Phobic anxiety	-0.11	0.07
Paranoid ideation	-0.18	0.01
Psychoticism	-0.20	0.09
Distress	-0.20	0.11

* Statistically significant correlation (P< 0.05)

presence of Extra-articular manifestations (EAM).

The distribution of radiological severity is shown in table (4). All stages were represented, but more than one-third of the patients (38.3%) were classified as stage 3, and about two-thirds of the patients (65%) were in stages 2 or 3, therefore, the average patient in our sample had a moderately severe disease.

This is also apparent from table (5) comparing RF positivity in RA and OA patients. Seropositivity was 88.3% in RA patients and 5% in OA patients with a very high statistically significant difference (P< 0.001).

As for the extra-articular manifestations (EAM) in RA patients, 15 patients (25%) were positive, 11 of whom had one E.A.M. (18.3%) and 4 had two E.A.M. (6.7%), in the form of subcutaneous nodules, secondary Sjogren's syndrome, pleurisy or pleural effusion.

(4) Disease Outcome:

Table (6) shows comparison be-

Table 9
Spearman Rank Correlation Coefficients between Parameters of Disease Activity and Scales of the SCL-90-R in RA Patients (N= 60)

SCL-90-R Scale	Ritchie Articular Index	Grip Strength	Morning Stiffness	ESR	Pain
Somatization	0.22	-0.15	-0.03	-0.11	0.14
Obsessive-compulsive	0.14	-0.10	-0.10	0.05	0.12
Interpersonal sensitivity	0.02	-0.04	-0.03	0.03	0.03
Depression	0.22	-0.03	-0.02	0.06*	0.09
Anxiety	0.15	0.07	-0.06	0.07	0.13
Hostility	0.09	0.06	-0.09	-0.06	0.04
Phobic	0.07	0.02	-0.06	0.03	0.10
Paranoid ideation	0.07	0.06	0.06	0.01	0.07
Psychoticism	0.14	0.05	0.07	0.05	0.05
Distress	0.15	0.02	0.05	0.06	0.10

*Statistically significant correlation (P<0.05)

toid Factor (RF) seropositivity and the

Table 10
Spearman Rank Correlation Coefficients of Functional Class Disability Index and Radiological Stage with SCL-90-R Scales in RA Patients (N= 60)

SCL-90-R Scale	functional Class	Disability Index	Radiological Stage
Somatization	0.34**	0.32**	0.4
Obsessive-compulsive	0.13	0.20	0.18
Interpersonal sensitivity	0.13	0.11	0.07
Depression	0.20	0.28*	0.03
Anxiety	0.15	0.20	0.14
Hostility	0.02	0.07	0.11
Phobic anxiety	0.25	0.13	0.04
Paranoid ideation	0.03	0.06	0.04
Psychoticism	0.19	0.20	0.01
Distress	0.25	0.23	0.04

* Statistically significant correlation (P<0.05)
** Highly significant correlation (P<0.01)

Table 11
Association of Seropositivity and Presence of Extra-Articular Manifestations with SCL-90-R Scales in RA Patients (N= 60)

SCL-90-R Scale	Seropositivity (N=53)		Extra-Articular (N= 15)	
	U	P value	U	P value
Somatization	181.5	0.9	320.5	0.7
Obsessive-compulsive	171	0.7	326.5	0.8
Interpersonal sensitivity	170	0.7	329.5	0.9
Depression	180.5	0.9	335.5	0.9
Anxiety	171.5	0.7	314	0.7
Hostility	164	0.6	326	0.8
Phobic anxiety	179.5	0.9	305	0.5
Paranoid ideation	165	0.6	273.5	0.3
Psychoticism	170.5	0.7	330.5	0.9
Distress	177.5	0.8	329	0.9

Tested using the Mann-Whitney U-test for differences in psychological scores between two groups

tween RA and OA patients in disease outcomes. Whereas pain reports of RA patients did not significantly increase over those of OA patients, both self-report and physician assessment of functional status revealed that RA patients suffer much higher disability than OA patients. The self-reports of patients on the HAQ-DI (Fries *et al.*, 1980) showed that RA patients represented various degrees of disability, but were on the average in the mid-range of disability (mean = 1.32 ± 0.83), while OA patients were very mildly disabled (mean = 0.44 ± 0.28). Physician assessment showed that the majority of RA patients (86.7%) were in functional grades II and III, while two-thirds of OA patients were in grade I, one-third in grade II and none in grades III and IV. Differences between RA and OA patients were very highly statistically significant in both functional grade and disability index ($p< 0.001$).

In summary, RA patients were on the average of moderate activity and severity and were very much more disabled than OA patients. The two groups reported more or less similar pain, and were not different in disease duration, past or family history of medical conditions, but the OA patients had a higher age at onset than RA patients.

(5) Differences in Psychological Variables between RA and OA:

The differences in psychological profile between RA and OA patients as determined by the SCL-90-R are shown in table (7). The RA group showed a higher mean and median in all scales than the OA group, indicating that the average RA patient had more psychological symptoms than the average OA patient. Nevertheless, this increase reached statistical significance only in somatization, interpersonal sensitivity and total symptom distress, and was very highly significant in depression ($p< 0.001$).

In summary, as individuals, RA patients had a higher prevalence of psychiatric symptoms than OA patients, but the difference in prevalence did not reach statistical significance except for phobic anxiety. As a group, RA patients showed higher psychological scores than OA patients on the SCL-90-R which reached statistical significance in somatization, interpersonal sensitivity and total symptom distress and was very highly significant in depression.

(B) Correlation of Psychological Variables with RA Disease parameters

(1) Age at Onset and Disease Duration:

The age at onset was only significantly correlated negatively with somatization, while the disease duration was not significantly correlated with any of the SCL-90-R scales, as shown in table (8).

(2) Disease Activity and Pain:

The correlations of the psychological scales of the SCL- 90-R with parameters of RA disease activity was poor. The only exception was depression, which showed a statistically significant correlation with the ESR, and approached a statistically significant correlation with the IDA and RAI as shown in table (9).

It is notable that pain was not significantly correlated with psychological variables.

(3) Disease Severity:

The correlation between the three parameters of severity (radiological, seropositivity and extra-articular manifestations) and the SCL-90-R scales are shown in tables (10) and (11).

None of the parameters of severity was significantly associated with any psychological scale. It is of notice also that there was no difference in psychological profile between seropositive and seronegative patients.

(4) Functional Class and Disability:

Table (10) shows that somatization was highly correlated with the functional class and disability index, and that depression was significantly correlated with disability; moreover, the correlation coefficients between these two parameters and other SCL-90 - R scales were higher than those for other disease parameters, making disability the disease parameter associated most with psychological variables.

Discussion

The age at onset of the disease in RA patients ranged from 16 to 57 years old, with a mean of 33.4±11.6. The minimum age is the limit between RA and Juvenile Chronic Arthritis. The mean is characteristic of the average RA patient and is almost similar to the mean of 34±10 years found by Abd El-Azim *et al.* (1987) who stated that the disease begins most often in the fourth decade.

On the other hand, OA patients ranged from 29.5 to 72 years at onset, with a mean of 44±9.7. Despite the inclusion of secondary OA of the knees, there was still a very highly significant difference between the two groups in age at onset, as would be expected from the natural history of both diseases.

Conversely, disease duration was not significantly different between the two groups, with a similar range of 6 weeks (the minimum for diagnosing RA) to 20 years, and a mean of 6.3±5.4 years in RA and 5±4.5 years in OA. This means that the two groups showed equivalent chronicity.

Age at onset and disease duration were not correlated with any psychological variables except that age at onset was significantly correlated negatively with somatization in RA, and this may help explain some of the significant increase in somatization in RA patients in comparison to OA patients.

This is in agreement with Zaphiropoulos and Burry (1974) and Mc Farlane and Brooks (1988b), who found no significant correlation between depression specifically or the psychological state generally and the duration of the disease in their RA samples.

Conversely, Cassileth *et al.* (1981) had found that anxiety and depression, and Hawley and Wolfe (1988) had found that anxiety but not depression, were negatively correlated with RA chronicity, with the early onset patients having higher scores.

Newman *et al.* (1989) argued that disease duration represents two opposing factors: adaptation, with a psychologically positive effect, and disability with a negative effect. It is possible that our patients, with a mean of 6 years chronicity, represented a buffering action of adaptation on disability, making disease duration uncorrelated with the psychological state. Anyhow, even investigators finding a negative correlation mentioned that the force of the disease over time influenced psychological scores only slightly (Hawley and Wolfe, 1988), so that we can conclude that age at onset and disease duration do not make a significant contribution to the psychological state in RA patients.

The RA patients in our sample showed all grades of activity, from patients in remission to patients who were in high activity, but the average patient was moderately active (median Index of Disease Activity "IDA" = 3 / 4, mean ESR = 50, / hr).

Depressive symptoms were the only psychological symptoms associated with parameters of disease activity, being significantly correlated with the ESR and approaching a significant correlation with the IDA and articular index. This significant correlation of depressive symptoms with the ESR may be one of

the factors explaining the very highly significant difference in depression scores between RA patients (with much higher ESR) and OA patients.

Mc Farlane and Brooks (1988b) and Newman *et al.* (1989) found that parameters of disease activity were not correlated with psychological factors while Abd El-Azim *et al.* (1987) found that active RA patients had a nonsignificant increase in psychological scores over non-active RA patients (they compared only 16 patients). On the other hand, Hawley and Wolfe (1988) noticed that depression was weakly but significantly associated with RA disease activity, and Frank *et al.* (1988) found that the ESR was one of the predictors of depression in RA, though a weak predictor.

This weak but significant association of depression and an objective laboratory parameter of disease activity (the ESR), found in our study and others may seem surprising. But the recent research in psychoneuroimmunology has drawn attention to the interaction between the psychological state and immune mechanisms, which may have an effect on RA activity, mediated by substance P (Levine *et al.*, 1985) or opioid peptides (Famaey *et al.*, 1990). Nakamura and Yoshino (1990) have recently found that RA activity may be influenced by the patient's mental state, mediated by opioid peptides and the immune system. We therefore propose that depression may cause alterations in immune mechanisms (e.g. cytokines) which affect the release of acute phase reactants, elevating the ESR and increasing the activity of RA.

Our sample of RA patients were distributed on all stages of radiological severity (stage 1 = 17%; stage II = 27% stage III = 38%; stage IV = 18%) but were on the average moderately severe, as evidenced by 65% of the patients being in stages II or III. The 25% presence of one or more extra-articular manifestations (nodules; Sjogren's syndrome; pleural effusion) is further evidence of the severity of the disease in our sample. EL-Badawy (1979) found that the majority of patients (53%) were in stage I while 45% were in stages II or III, and found that extra-articular manifestations were only 3.3% prevalent when studying the pattern of RA in Egyptian patients. It may be possible that RA is becoming a more severe disease with time as stated by several rheumatologists informally, and that it probably evolves (Harris, 1989b). Another reason is that we applied the 1987 ARA criteria (Arnett *et al.*, 1988) which are more specific to RA.

The 88% seropositivity by latex fixation in our RA patients is another marker of the moderately severe disease in our patients (Calin *et al.*, 1989), as latex fixation usually detects 70% of RA patients in population surveys (Carson, 1988). The 5% seropositivity in OA patients is not surprising, as rheumatoid factor may be found in normal individuals, especially the elderly (Carson, 1989).

In our study, neither radiological severity, nor extra-articular manifestations, nor seropositivity were associated with any psychological factor. Some studies such as that of Moos and Solomon (1964) had found that patients with severe rapidly progressive disease suffer more psychologically than those with mild disease. However, other studies did not find any association between RA disease severity and psychological factors generally (Burry and Zaphiropoules, 1974) or depression in particular (Frank *et al.*, 1988), concluding that there is no significant relationship between the presence or history of depression and RA disease severity, which is in agreement with our study.

Concerning seropositivity, Crown *et*

al. (1975) and Vollhardt *et al.* (1982) found differences in psychological profile between seropositive and negative patients, while Pow (1987) found no differences except that the seropositive group experience more phobias. In our study, RA patients as a whole had significantly more prevalent phobias than OA patients, but seropositive patients did not significantly differ in this regard from seronegative patients.

The average RA patient reported above average pain (median pain grade = 6), which was not statistically different from the median for OA patients (5). Though RA is a polyarticular disease, the pain measure we used was subjective, and OA patients may report similar pain, or even more pain than RA patients on subjective pain scales (Hawley and Wolfe, 1991).

Parker *et al.* (1988), using the SCL-90-R in 135 RA patients, had found significant correlation of pain with obsessive-compulsive and interpersonal sensitivity scales (excluding somatization because pain is a medical symptom obviously expected to elevate the somatization scores). In our study, Obsessive-compulsive was the psychological scale correlated most with pain, apart from somatization, but both were not statistically significant, perhaps due to the smaller number of our sample. Our findings are in agreement with Newman *et al.* (1989) and Peck *et al.* (1989), who found that self-reported pain intensity was much more clearly related to disability and disease activity than to depression. Therefore reported pain in RA did not appear to reflect primarily the emotional impact of the disease.

Despite almost similar pain, RA patients were much more functionally impaired than OA patients both by physician judgement of functional grade and by patients' self-reports of disability (HAQ-Disability Index), in accordance with Hawley and Wolfe (1991), who found that HAQ disability scores are highest in disorders that affect multiple peripheral joints especially RA.

The correlation coefficients of the two measures of disability (functional-grade and disability index) with the scales of the SCL-90-R were higher than those of other RA disease parameters (activity; severity; duration; pain), therefore we can conclude that disability is the disease parameter associated most with psychological factors. Since in a RA sample, the somatization scale should be disregarded because physical symptom have an identifiable medical basis (Parker *et al.*, 1990) the remaining statistically significant association is between disability and depression. This may be one of the factors elevating depression scores in RA patients, as they had much more disability than OA patients.

The statistically significant association between disability and depression is a recurring theme in several studies addressing psychological factors in RA (Spiegel *et al.*, 1988; Peck *et al.*, 1989; Fitzpatrick *et al.*, 1991: Cavalieri *et al.*, 1991). The question of which of them causes the other cannot be answered in this cross-sectional study, but previous studies have demonstrated that there is a direct relationship between disability and depression in which deterioration in one leads to deterioration in the other (Creed, 1990). Mc Farlane and Brooks (1988a) found that psychological factors especially depression predicted more of the variance of depression than disease activity, while Newman *et al.* (1989) found that disability in turn was the most powerful predictor of depressed mood in RA.

The mediators of such a complex relationship between disability and depression may be both biological and psycho-

social e.g coping mechanisms; learned helplessness; social support. (Friedland and Mc Coll, 1992; Blalock and De Vellis, 1992).

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Arthrities Rheumatoide (A.R): Une étude des Symptômes Psychologicaux en Relation à des Paramètres de maladies

L'étude présente est un essaie pour investiguer la correlation des symptômes psychologicaux dans les patients de l'A.R, selon les differents paramètres de la maladie. L'échantillant est consisté de 100 patients includent 60 arthritis rheumatoide (A.R.) patients et 40 patients d'osteoarthritis (O.A)des genoux comme etant un grouppe comparatif. Elle reprèsente les nouvaux diagnosies auisi que les patients chroniques dans des classes et des étapes diffirents de la maladie, selon les histoires obtenues, l'éxamination et les investiguations qui ont été faites. La version arabe du symptôme de la liste du check 90 reviseé (SCL90 R) a été utilisée comme étant une partie de l'assessement psycological et psychiatrique des patients. Les découverts ont démontré que la disabilité était le paramètre de la maladie de l' A.R. qui correlle souvent ovec la dépression, poursious par le E S R sévérité de maladie. La duration, la sère positivité et la douleur n'étaient pas signifiquement corrollées avec aucun facetur psychological. Ces découverts ont été discutés à la lumiére de la littérature.

الروماتويد المفصلى : دراسة الأعراض النفسية فى علاقاتها بأبعاد المرض المختلفة

الروماتويد المفصلى مرض مزمن ومعوق يصيب العديد من المفاصل ، وله تأثير كبير على الحاله النفسية ، كما أن العوامل النفسية بدورها تؤثر على المرض . والهدف من هذا البحث هو محاولة دراسة العلاقة بين الأعراض النفسية عند هؤلاء المرضى وأبعاد مرض الروماتيد المختلفة .

وقد شملت الدراسة ستين مريضا بالروماتويد المفصلى بالمقارنة بأربعين مريضا بالالتهاب المفصلى العظمى للركبتين . واستخدمنا ، بالإضافة للتاريخ المرضى والفحص الإكلينيكى الشامل ، بعض وسائل القياس التى ثبت صدقها للألم ونشاط وشدة المرض والإعاقة ، كما استخدمنا " قائمة الأعراض ٩٠ – المراجعة " كوسيلة تم التحقق من صدقها حديثا للقياس النفسى فى مرضى الروماتويد حيث أنها خالية من العبارات المتعلقة بالمرض .

وقد كان غالبية مرضى الروماتويد إناثا (٨٠٪) بمتوسط عمر ٣٩.٧ سنة ، ومتوسط فترة المرض ٦.٣ سنة ، وقد كانوا فى درجات متباينة من الألم والإعاقة وشدة نشاط المرض . أما مرضى الالتهاب المفصلى العظمى فقد كان متوسط أعمارهم وفترة مرضهم ٤٩ سنة و ٥ سنوات على التوالى ، وكان بينهم ٥ .٧٧٪ من الإناث .

وقد أظهرت نتائج البحث عدم وجود فروق ذات دلالة إحصائية فى الألم بين المجموعتين ، ولكن نسبة الإعاقة كانت أكبر بكثير فى مرضى الروماتويد ، وقد كانت الإعاقة وسرعة الترسيب العاملين الوحيدين من عوامل مرض الروماتويد اللذين ارتبطا بالاكتئاب على مستوى الدلالة الإحصائية .