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Rheumatoid arthritis in Lebanese patients: characteristics in a tertiary referral centre in Beirut city

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Rheumatoid arthritis (RA) is a worldwide inflammatory joint disease with variable degrees of joint damage and extra articular manifestations (EAMs). Several studies have shown that the disease is less severe and has fewer EAMs in Mediterranean countries than in other geographical areas.^{1–3} In Lebanon, there are no reliable data on its characteristics. Because differences in the clinical features require different practice guidelines, it is necessary to assess our population. We describe here the disease in a cohort of Lebanese patients with RA in our tertiary university hospital in the capital, Beirut.

We identified 97 patients with RA, above the age of 18, in the outpatient clinics of the rheumatology department over a 1 year period, starting March 2001. They all fulfilled the 1987 American College of Rheumatology (ACR) revised criteria.⁴ All patients were evaluated according to a standardised data collection form, including demographic variables and disease history with clinical, biological, and radiological features, as well as details of treatment. Because RA severity does not have a widely accepted definition, we assessed our patients according to the following criteria:

- The 28 joint count Disease Activity Score (DAS28)⁵
- The presence of typical radiological lesions as defined by the 1987 ACR revised criteria in both hands and wrists in recent radiographs (within 1 year)⁴
- The presence of total joint replacement surgery because of arthritic changes
- The modified version of the Health Assessment Questionnaire (MHAQ)⁶
- The presence of any EAMs: nodules, vasculitis or Felty's syndrome.

Demographic and clinical features were concordant with those in other Mediterranean countries (see table 1). Ten per cent of the patients were over 70 years and 25 (26%) had <2 years' disease duration. The disease was active (DAS28

>3.2) in 57 (59%) of the patients and highly active (DAS28 >5.1) in 14 (14%). Eight patients were in remission according to the DAS28 (<2.6)⁵ and one according to the ACR criteria.⁷ Radiographic damage was present in 74 (76%) patients with a mean (SD) Larsen score of 43.8 (34.9) on a scale of 0 to 170 in 34 joints of the hands (grade 0–5). Eleven patients had undergone total joint replacement surgery because of RA since the onset of their disease. The only observed EAM was subcutaneous nodules in 17 (18%) patients. Owing to the onset of the disease, all patients had used disease modifying antirheumatic drugs (DMARDs): two or more in 58 (60%); Currently 95 (98%) were being treated with DMARDs: methotrexate in 50 (52%) (mean dose of 13.7 mg/week), antimalarial drugs in 31 (32%), and leflunomide in 23 (24%).

This is the first study in an Arabic Mediterranean country, assessing the characteristics of what are, a priori, the most severe cases of RA in our country and especially in the greater Beirut area, as they were recruited from a tertiary university referral centre in the capital, an accessible referent city for Lebanese people living throughout our small country. Moreover, our data confirm the milder nature of the disease in an eastern Mediterranean country in comparison with northern Europe, even though this comparison is difficult in the absence of adjustments (table 1). A concern in our cohort is the relatively recent disease (<2 years in 25 (26%) patients), which may have led us to underevaluate the incidence of EAMs.

In conclusion, even though RA seen in our hospital has a benign systemic expression and lead to mild disability, it is a destructive disease despite the widespread use of DMARDs. This is an important feature, especially as the new and more aggressive disease suppressing treatment is expensive and we lack a universal third-party payer in our country. The current study provides information about Lebanese patients with the most severe RA, but another study evaluating the disease throughout Lebanon, called the SEVERA study (Severity of RA in the Lebanese population), is in progress.

Table 1 Comparison of RA characteristics across Mediterranean and northern European countries

Characteristics	Lebanon (current survey)	Greece ¹	Italy ^{8,9}	Spain ³	France ¹⁰	UK ¹	Norway ²	Lithuania ²
Patients (n)	97	108	200	788	1109	107	201	201
Mean age (years)	52.2		55.3	61	56.7		55.9	55.9
Sex (% women)	87		81	71.3	77.3		83	83
Mean disease duration (years)	9.2		12.5	10	10.6		12.7	11.9
Tender joints (n), mean	6.9	6.8		3	7.2	15	6.6	12.6
Swollen joints (n), mean	4.4	4		4	4.9	8.9	7.8	4.7
DAS28 score, mean (SD)	3.6 (1.0)			3.4 (1.2)	4.51 (1.55)		4.4 (1.4)	5.3 (1.0)
Patients with typical lesions (%)	76	63	84		78	95		
HAQ score, mean (SD)			1.71	1.6 (0.4)	1.32 (0.77)			
MHAQ score, mean (SD) [scale]	0.66 (0.47) [0–3]						1.6 (0.5) [1–4]	2.3 (0.8) [1–4]
Patients with EAMs (%)	18	20.4	40.9	36.2	8.4	65–71	62	59
Patients ever receiving DMARDs (%)	100		89				90	94
Patients currently receiving DMARDs (%)	98			72	82.1			
Patients receiving oral steroids (%)	66		75		72			

DAS28, 28 joint disease activity score; HAQ, Health Assessment Questionnaire score; MHAQ, modified Health Assessment Questionnaire score; EAMs, extra-articular manifestations; DMARD, disease modifying antirheumatic drug.

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Pulmonary nodules as initial manifestation of primary Sjögren's syndrome

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A 66 year old white woman was referred to us for further evaluation of pulmonary nodules. Her medical history was as follows: in July 2001 multiple pulmonary nodules were recorded on a chest x ray examination as well as computed tomographic (CT) scan (fig 1). Cancer of unknown origin with multiple lung metastases was suspected. The patient showed no pulmonary symptoms at any time, was a non-smoker, and had not been exposed to any environmental toxins. She underwent an intensive search for the primary tumour, but all investigations were unsuccessful. Thus anterolateral thoracotomy was performed for histological evaluation of the nodules, which were classified as disseminated rheumatoid nodules (fig 2).

On presentation at our clinic, the patient reported extreme dryness of mouth and eyes, as well as Raynaud's phenomenon. She did not have any history of fever, night sweats, weight loss, thrombosis, arthralgias, or morning stiffness.

Clinical examination at that time (November 2001) showed extreme dryness of mouth and eyes, confirmed by pathological Saxon and Schirmer tests. There was no evidence of parotid swelling or enlarged lymph nodes. No tender or swollen joints, no functional deficits or joint deformities, no subcutaneous rheumatoid nodules or rashes were documented on clinical examination.

Laboratory values were as follows: rheumatoid factor was strongly positive with 156 U/ml (normal <20 U/ml). Indirect immunofluorescent assay for antinuclear antibodies on Hep-2 cells showed a titre of 1/640, and serological testing was positive for anti-SSA and anti-SSB antibodies; antibodies against Sm, RNP/Sm, U1-snRNP, Scl-70, Jo-1, CENP-B, dsDNA, and histones were negative, as were antineutrophil cytoplasmic antibodies. The C3 and C4 complement fractions and C reactive protein were in the normal range.