Health related Quality of Life in Libyan patients with rheumatoid arthritis

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Abstract

***Background**:* In order to measure therapeutic effects or assess disease course, outcome measurement parameters are commonly used in patients with Rheumatoid Arthritis (RA). Quality of Life (QoL) is important outcome measure. There is a paucity of data on the impact of chronic rheumatic diseases on functional disability, as well as Health-Related Quality of Life (HRQOL) in Africans (1). Unfortunately there is no available data about HRQOL in Libya.

Objective: Evaluation of RA burden in Libya was the aim of the study; the study goal was to determine Health Related Quality Of Life (HRQOL) in patients with Rheumatoid Arthritis (RA), who are on disease modifying antirheumatic drugs (DMARD).

Setting: Rheumatology clinic of Tripoli Medical Center, Tripoli, Libya.

Methods: The inclusion criteria for the study were all patients who were diagnosed to have RA by the American College of Rheumatology ACR criteria of 1987, were on DMARDs (started within 6 months of disease duration), had a 28-joint disease activity score (DAS28) of 2.6-5.1, attended the rheumatology clinic of Tripoli Medical Center, Tripoli, Libya, from 1st June 2010 to 30th July 2010 and consented to participate in the study. The study was done after receiving consent from the Tripoli Medical Center ethical and research committee.

Results: One hundred patients were included in the study. The age at diagnosis ranged from 15 to 73 years; the median age was 39 years. The majority of patients were females 94 (94%) patients and 6 (6%) patients were male. The disease duration (symptoms onset to evaluation) ranged from 6 months to 40 years, the median disease duration was 7 years**.** Rheumatoid factor was positive in 72 (72%) patients. They had a 28-joint disease activity score (DAS28) of 2.6-5.1. They were on DMARDs started within 6 months of disease duration, 85% were on methotrexate, 10% were on hydroxychloroquine and 5% were on sulfasalazine. Sixty five percent were on prednisolone tablets (5mg) in addition to DMARDs. Sixty three percent of patients had score 0-1, 25% of them had score 1-2 and 12% had score 2-3. The mean of HAQ score for all patients was 0.86 with standard deviation (SD) of 0.76. The median was 0.75 (range 0.000-2.625)

Conclusion: After evaluation of the RA burden in Libya, we found that 63% of our patients had HAQ score of 0-1, which means mild to moderate disability. In this study, patients selected were using DMARDs at early stage of the disease, (disease duration ≤ 6 months), in further studies, we will compare these results with results of patients who had used DMARDs at later stage of the disease.

Introduction

Rheumatoid Arthritis (RA) is the most common inflammatory arthritis. RA affects 0.5% to 1% of the general population worldwide[1]. It is a chronic, autoimmune, disease that is associated with inflammation of the articular synovium in the joints, resulting in bony erosions, deformity and ultimately joint destruction[2]. In order to measure therapeutic effects or assess disease course, outcome measurement parameters are commonly used in patients with RA**.** Quality of Life (QoL) is an important outcome measure[3]. According to the World Health Organization (WHO), quality of life is defined as; "the satisfaction of a patient with their situation in terms of health status and their ability to function in daily life". Assessment of Health- Related Quality of Life (HRQOL) has gained much importance in the care of Rheumatoid Arthritis (RA)[4]. A vast array of instruments has been created to measure HRQOL. They are typically divided in to two categories; generic and disease-specific. Generic measurements include health profiles and instruments that generate health utilities, whereas disease-specific instruments include activities of daily living and function specific to the disease in question[2]. The medical outcomes study, 36-Item Short Form (SF-36) and HAQ-DI, are perhaps the most well-known and widely used generic and disease-specific health status measures used in the evaluation of RA

patients, respectively[2]. SF-36 has limited reliability and responsiveness for use in clinical studies[5,6]. There have been two main approaches to the assessment of the effects of RA on patient's lives; quantitative and qualitative. The quantitative approach employs scores obtained by RA patients using standardized measures of health status. The HAQ[7] is the most widely used measure of functional disability in RA. Several instruments, such as, the Arthritis Impact Measurement scale (AIMS)[8], and the subsequent AIMS2[9], the Nottingham Health Profile (NHP)[10] and the Sickness Impact Profile (SIP)[11], these instruments have been designed in an attempt to go beyond the measurement of physical impairment and disability, by addressing more emotional and social aspects of a condition. However, problems have been identified with all three instruments. None have been found to have adequate reliability[10-11]or to be consistently responsive. The EuroQol, primarily intended for use in utility analyses, has also been advocated as a generic measure of health-related quality of life that could be applied with RA patients[12]. Meanwhile, the content of the instrument is rather simplistic and covers function, rather than Qol. It has been found to be crude[13], unresponsive[14] and to yield poor response rate[15].

The HAQ, published in 1980, was among the first instruments based on generic, patient-centred dimensions. The HAQ was designed to represent a model of patient-oriented outcome assessment. Strengthened by its use over the past two decades in diverse settings, the HAQ has established itself as a valuable, effective, and sensitive tool for measurement of health status. It is available in more than 60 languages and is supported by a bibliography of more than 500 references[16]. We used HAQ-DI in this study because it is a good predictor of future disability and it is easily applicable.

Objectives of the study: Evaluation of RA burden in Libya was the aim of the study; the study goal was to determine Health Related Quality Of Life (HRQOL) in patients with Rheumatoid Arthritis (RA), who are on Disease Modifying Antirheumatic Drugs (DMARD).

Materials and Methods

The inclusion criteria for the study were all patients who were diagnosed to have RA by the American College of Rheumatology ACR criteria of 1987[17], were on DMARDs (started within 6 months of disease duration), had a 28-joint Disease Activity Score (DAS28)[18] of 2.6-5.1, attended the Rheumatology Clinic of Tripoli Medical Center, Tripoli, Libya, from 1st June 2010 to 30th July 2010 and consented to participate in the study. The study was done after receiving consent from the Tripoli Medical Center ethical and research committee.

Exclusion criteria: Patients in remission, those with high disease activity and patients on biological treatment were excluded. Demographical details such as age and educational level were recorded. The details of the disease were noted such as the duration of the disease and the type of DMARDs used for every patient. The selected patients were asked to complete a HAQ-DI (translated Arabic version) by themselves and submit it on the same day.

Data analysis: Data was analyzed using SPSS computer software package. Continuous variables were categorized in ranges and summarized in to means, medians and standard deviations.

Results

One hundred patients were included in the study. The age at diagnosis ranged from 15 to 73 years, the median age was 39 years. The majority of patients were females. Ninety four (94%) patients were female and 6 (6%) were male. The disease duration (symptoms onset to evaluation) ranged from 6 months to 40 years, the median disease duration was 7 years (Table1).

Table 1: Demographic and clinical characteristis of the patients

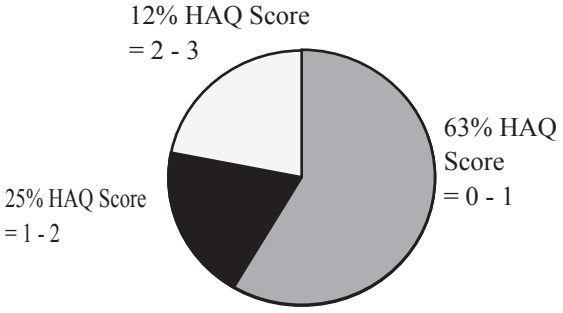
No. of patients	100
Age at diagnosis (years)	
Mean(SD)	40 (SD=12.86)
Median (range)	39 (15-73)
Sex	
Female	94
Male	6
Duration of disease (years)	
Mean	8.17 (SD=6.62)
Median (SD)	7.00 (6 months - 40 years)

Rheumatoid factor was positive in 72 (72%) patients. They had a 28-joint Disease Activity Score (DAS28) of 2.6-5.1.

They were on DMARDs started within 6 months of disease duration; 85% were on methotrexate, 10% were on hydroxychloroquine and 5% were on sulfasalazine, 65% were on prednisolone tablets (5mg) in addition to DMARDs.

Sixty three percent of patients had score of 0-1, 25% of them had score of 1-2 and 12% had score of 2-3 (Figure 1).

Figure 1: HAQ scoring of 100 RA patients



The mean of HAQ score for all patients was 0.86 with standard deviation (SD) of 0.76. The median was 0.75 (range 0.000- 2.625).

Discussion

The utilization of Health-Related Quality Of Life (HRQOL) patient questionnaires by clinical rheumatologists is limited. Although, literature supports the potential value of HRQOL patient questionnaires in

clinical practice, few rheumatologists routinely gather such information as part of patient care[19]. It is cardinal rule that the questionnaire used for assessing HRQL should be regionally applicable and based on the practices of the population from that particular region[4]. We used HAQ-DI to assess the extent of our patient's functional ability, as it has been widely used in research purposes, as well as in clinical setting. It is sensitive to change and is a good predictor of future disability and cost. It has been shown to be reliable and valid in different languages and context[20]. The treatment of RA has seen a paradigm shift in the last decade. More pressure is being put on early detection and aggressive intervention in order to prevent disability and irreversible damage. The pace of radiographic erosion, which progresses very fast in the initial phase of the disease, can be retarded by effective control of the disease activity[21]. Survival per se is no longer the treatment goal for RA. Another goal is control of joint symptoms and thus to improve, restore, or preserve health related quality of life[2].

We compared this study with another study which had been done in South African public health care clinic[22]. In that study, only 17% of patients were completely self sufficient (HAQ-DI 0.00-0.50), 22% were reasonably self-sufficient (HAQ-DI>0.50≤1.25), 26% had many major problems with activities of daily living (HAQ-DI>1.25≤2.00) and 35% could be regarded as severely handicapped (HAQ-DI>2.00-3.00). The median HAQ-DI score was 1.6 compared to our study where the median HAQ-DI score was 0.75.

The median HAQ-DI in South Africa study was worse than our results ($p<0.05$). This might be related to the selection of our patients. We selected patients who were started early on DMARDs and who had DAS28 score of 2.6-5.1.

Conclusion

After evaluation of the RA burden in Libya, we found out that 63% of our patients had HAQ score of 0-1, which means mild to moderate disability. In this study, patients selected were using DMARDs at early stage of the disease, (disease duration ≤ 6 months), in further studies, we will compare these results with results of patients who had used DMARDs at later stage of the disease.

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