

CONCISE REPORT

Women with early rheumatoid arthritis are referred later than men

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Objective: To evaluate lag times between disease onset and rheumatological encounter in patients with early rheumatoid arthritis (RA).

Methods: All referred patients with early RA over a 1 year period were prospectively registered. The lag time between disease onset and the first encounter with a physician was recorded as the "patient's delay". The time between this encounter and the referral to our department was recorded as the "physician's delay". The lag time between referral and rheumatological encounter was recorded as the "hospital's delay".

Results: The median total lag time between onset of RA and rheumatological encounter was 16 weeks, with no difference between men and women. Women were referred significantly later than men ("physician's delay" median 10 weeks v 3 weeks). The "patient's delay" and the "hospital's delay" were a median of 4 weeks each.

Conclusion: Women with early RA were referred later than men and the total lag time between disease onset and rheumatological encounter was quite long for both sexes.

Rheumatoid arthritis (RA) may lead to early erosions in joints and progress into severe disability. Antirheumatic treatment should be started within a few months after the onset of symptoms, and early referrals of patients are the most effective "joint protecting" measure for patients with RA.¹ Although the importance of early antirheumatic treatment has been well documented,^{2,3} studies describing delays from disease onset to rheumatological encounter in patients with early RA are scarce, making it difficult to know where in the process delays can be reduced.

According to a previous study, women with RA were referred later than men.⁴ In this study, therefore, we wanted to investigate the lag times between disease onset and rheumatological encounter, with special focus on the possible differences between men and women with early RA.

PATIENTS AND METHODS

Population and patients

The county of Østfold is a mixed urban and rural area of 240 000 inhabitants, with one rheumatology department and three part-time working rheumatologists, who were informed of the study and agreed to refer patients with possible RA without delay. In a planned prospective study, all referred patients underwent a standard rheumatological investigation at their first visit to our department and during at least one follow up within 12 months. Of 59 patients who within the follow up period fulfilled the American College of Rheumatology criteria for RA,⁵ 44 (27 women and 17 men with a median age of 63 years) were available for further analyses. Reasons for exclusion were disease duration of

more than 1 year or insufficient history of the lag times of interest. The age and sex of the excluded patients were similar to those of patients included.

Lag times

To describe the total lag time between onset of RA and rheumatological encounter, we studied the following lag times: (a) between onset of symptoms and the first encounter with a physician ("patient's delay"); (b) between the first encounter with a physician and referral to our department ("physician's delay"); and (c) between referral and rheumatological encounter ("hospital's delay"). At the rheumatological encounter all patients were interviewed according to a standardised questionnaire in order to determine the time of disease onset, defined as onset of stiffness, pain, or joint swelling, and the following first visit to a physician. Additional information about the onset of RA was extracted from the referral letters. The "physician's delay" was calculated by subtracting the date of referral from the date of the patient's first visit to the physician. The "hospital's delay" was registered by subtracting the date of the referral from the date of the rheumatological encounter. The lag times were analysed for men and women separately.

Statistical analyses

Statistical analyses were performed with SPSS, version 10. The Mann-Whitney U test was used for comparison of continuous variables. Values of $p \leq 0.05$ were considered significant.

Ethics

The registration and the database were approved by the regional ethical committee and the Norwegian Data Inspectorate, respectively.

RESULTS

The median total lag time and the "patient's delay" did not differ significantly between men and women, whereas the "physician's delay" was significantly longer in women than in men. The "physician's delay" was significantly longer than the "hospital's delay" in both men and women (table 1).

DISCUSSION

In our patients with early RA, the total lag time between disease onset and rheumatological encounter was a median of 16 weeks. This value may be considered rather high taking into account that the county has a rheumatology service with five specialists for 240 000 inhabitants. On an international level this is high density of specialists. Data from comparable studies are scarce, but indicate a corresponding lag time of more than 3 months in almost 50% of the cases.⁶ Previous studies reporting lag times ranging from 15 to 68 weeks included patients with longer disease duration^{7–9} and are not directly comparable with ours. Thus, even in patients with early RA quite long lag times between disease onset and

Table 1 Lag Times between disease onset and rheumatological care

Lag times (weeks)	Men (n = 17)		Women (n = 27)		Men and women (n = 44)	
	Median	Range	Median	Range	Median	Range
Patient's delay	4	(1–28)	4	(1–25)	4	(1–28)
Physician's delay	3*	(0–24)	10*	(0–34)	8*†	(0–34)
Hospital's delay	5	(0–16)	4	(0–24)	4†	(0–24)
Total lag time	16	(4–46)	18	(6–50)	16	(4–50)

*Difference men/women, $p = 0.039$ (Mann-Whitney test); †difference physician's delay/hospital's delay, $p \leq 0.05$.

rheumatological encounter are barriers to achievement of early diagnosis and treatment.

We found significantly prolonged "physician's delay" in women, in agreement with results of a previous study from the Netherlands.⁴ Although a clear explanation is lacking, different sociodemographic variables, help-seeking behaviour, and subjective health complaints between men and women may be of significance.^{4, 8–11} Moreover, the fact that women more frequently consult general practitioners with benign non-inflammatory rheumatic pain syndromes may be of importance because joint pain, stiffness, and swollen joints may mimic early RA and lead to time consuming diagnostic difficulties.^{10, 11}

The small number of patients included reduces the power of our study, and as this is a one centre survey, we should be cautious about generalising the findings. Nevertheless, the estimated incidence of RA (25/100 000), the distribution of the sexes, and the mean age at onset were similar to data reported from larger population based studies,^{12–14} indicating the comprehensiveness of our data. Another concern is the limited value of the American College of Rheumatology classification criteria in diagnosing early RA.¹⁵ Thus misclassification may have occurred in some cases.

In conclusion, our study indicates quite long lag times between disease onset and rheumatological encounter in patients with early RA. Women, who most often have RA, were referred later than men, indicating that referring physicians should pay special attention to the diagnosis of early RA in women in order to achieve a shorter "physician's delay". This study also highlights the need to improve the organisation of health care. The delay cannot be explained by a lack of rheumatologists. Crucial factors are improved knowledge among general practitioners about the importance of early treatment of RA and giving priority to early examination of patients who are suspected to have RA.

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