Editorial

An Excellent Example of an Early Arthritis Clinic — What Is Its Clinical Value?

EARLY ARTHRITIS IN POPULATION STUDIES

Research concerning early arthritis and early rheumatoid arthritis (RA) may be thought to have begun in population-based studies in the late 1950s to late 1960s. These studies indicated that the majority of people who had clinical findings of RA had no evidence of disease 3–5 years later[1], and that only about 25%–30% of people in a population who met criteria for RA had rheumatoid factor. These observations were thought for many years to apply to RA as seen in rheumatology clinical settings. However, they appear to apply to a different population, as many of those identified in these epidemiologic studies likely never saw a physician, and their symptoms resolved spontaneously. Therefore, instead of improving understanding of clinical RA, these early findings may have contributed to an underestimation of clinical RA until the severity of longterm outcomes of patients who were seen in rheumatology settings were recognized in the 1980s and later[2-4], on the basis of longitudinal followup of clinical cohorts for 10–40 years.

THE MOVEMENT TOWARD EARLY ARTHRITIS CLINICS

Emery and Gough[5] pointed out that RA is the most common cause of potentially treatable disability in Western countries, based on recognition of longterm severity of clinical RA[2-4]. At that time, general practitioners were advised to give patients a nonsteroidal antiinflammatory drug for up to 2 years before the use of disease modifying antirheumatic drugs (DMARD)[6]. During that interval, the optimal window of opportunity to treat RA inflammation might be lost in many patients. A need for early arthritis clinics was advocated, with desirable characteristics of a large referral population, knowledgeable and cooperative primary care physicians, and an enthusiastic organizer[5].

EARLY TREATMENT IS BENEFICIAL IN RANDOMIZED CLINICAL TRIALS

Observations from randomized clinical trials (RCT) support early versus delayed drug treatment in RA. The benefits of early versus delayed treatment have been documented in studies of intramuscular gold, auranofin, sulfasalazine, and hydroxychloroquine (as reviewed[7]). One metaanalysis indicated that disease duration at the time of DMARD initiation was the primary predictor of the response to DMARD treatment[8]. In the FIN-RACo trial, delay of 4 months of the initiation of a DMARD diminished the likelihood of remission[9]. One study concluded that very early treatment with methotrexate may postpone the development of RA[10].

IMPROVED LONGTERM OUTCOMES OF RA REFLECT EARLY AND ACTIVE TREATMENT STRATEGIES

Data from clinical cohorts and observational studies indicate that status and outcomes of RA patients have improved over the past decades concomitantly with implementation of early and active treatment strategies[11,12]. Improvements have been seen in disease activity, functional capacity, radiographic scores, and other clinical measures including lower mortality rates in patients who responded to methotrexate and to biological therapies, lower rates of joint replacement surgery at this time compared to earlier decades, and lower work disability rates in patients who responded to DMARD (as reviewed[13]). On the other hand, high levels of disease activity are still seen in many clinics in many countries and in some patients in all countries[14].

CLINICAL VALUE OF "VERY EARLY ARTHRITIS" CLINICS?

Recognition of severe longterm outcomes of RA in the early 1980s led to the call for aggressive strategies to treat RA, including early intervention. Benefits of early and active treatment strategies have been shown in randomized controlled trials and observational studies such as described above. Is further improvement needed in terms of early interventions?

In the current issue of *The Journal*, Mjaavatten, *et al*[15] provide an example of a well-functioning early arthritis clinic, with description of the pattern of joint involvement and its influence on patients' health status. Establishment of an early arthritis clinic is admirable. However, only a few centers have been able to establish such clinics, most often as part of early arthritis research projects.

Early arthritis clinics are in fashion at this time. However, their cost/benefit value may be questioned for at least 3 reasons:

1. An early arthritis clinic should possibly be established to identify patients who would develop destructive arthritis, such as stated by Mjaavatten, *et al*[15]. Recognition of RA in the early stages is both important and difficult. Criteria for

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RA have been developed since 1907[16]. However, the current set of criteria for RA, the American Rheumatism Association (now the American College of Rheumatology) ACR 1987 revised criteria, do not differentiate individual patients with early RA from those with other types of recent-onset inflammatory polyarthritides.

2. Early arthritis clinics might conduct research to identify biomarkers for patients who would develop destructive arthritis. However, none of the current biomarkers identifies more than two-thirds of patients who will develop destructive arthritis, and even in the present study, one of the available prediction models failed. About 40% of patients with RA have a normal erythrocyte sedimentation rate or C-reactive protein at first visit[17]. A recent metaanalysis indicated that rheumatoid factor is positive in 69%, and antibodies to cyclic citrullinated proteins (anti-CCP) in 67% of patients with RA[18]. To date, early arthritis clinics have not led to new markers for longterm destructive disease.

3. A third rationale for early arthritis clinics might be to postpone development of RA with methotrexate[10] or other early treatment. In the Oslo early arthritis clinic, however, only 28% of patients received a DMARD over the first year[15].

QUANTITATIVE LONGITUDINAL DATA COLLECTION IN ROUTINE RHEUMATOLOGY CARE

There certainly appears to be a need for a few early arthritis clinics as research projects, to discover and apply new information to this important problem. At this time, however, the primary lessons may be that there are no more advanced markers to recognize progressive disease, other than longitudinal observation of the patient. In most treatment settings, the early arthritis clinic may consume financial and human resources from this important need for all rheumatology treatment sites. Even observations from well established early arthritis clinics without longterm followup of patients remain a temporary exercise without the capacity to improve clinical care.

Mjaavatten, *et al*[15] have established a very early arthritis cohort. Longitudinal followup of this cohort and other such cohorts over years and decades will bring light to the course of very early arthritis. Whether that light is still needed, in the era of active strategies to treat clinical patients with RA using available drugs and tight control according to quantitative monitoring, remains to be seen.

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