Best Practice & Research Clinical Rheumatology
Vol. 19, No. 1, pp. 73–89, 2005
doi:10.1016/j.berh.2004.08.004
available online at http://www.sciencedirect.com

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How to assess early rheumatoid arthritis in daily clinical practice

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Rheumatoid arthritis (RA) is a heterogeneous disorder in terms of both clinical presentation and outcome. Our goals in RA are directed towards suppression of signs and symptoms of synovitis, prevention of structural damage, maintenance of functionality and reduction of mortality. IgM rheumatoid factor and anticitrulline antibodies should be recorded in clinical practice since they are prognostic values of outcome. As control of disease activity is pivotal to preventing or at least retarding long-term damage, it is important to define stringent therapeutic aims as well as to follow-up patients in daily practice. The disease activity score 28 is a valuable instrument for this purpose. The assessment of radiographic damage and disability should be assessed regularly. Since increased cardiovascular mortality has been documented even in early RA, other cardiovascular risk factors should be looked for and eventually treated.

Key words: early rheumatoid arthritis; assessment; daily clinical practice; prognostic factors; disability.

Rheumatoid arthritis (RA) is a heterogeneous disorder in terms of both clinical presentation and outcome. In some patients, a mild, non-erosive form of RA associated with little disability develops. Other patients have persistent and aggressive disease that produces severe articular damage after only a few years. Our goals in RA are directed towards suppression of signs and symptoms of synovitis, prevention of structural damage, improvement, maintenance of functionality and reduction of mortality. There is a close relationship between activity, structural damage and functional disability.

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FUNCTIONAL DISABILITY IN EARLY RA

In the early years of disease, there is a 'J-shaped' curve with an initial fall in disability, that may be due to the adaptation of the patient or to the effects of treatment, followed by an increase over the next 4 years.[1] In cross-sectional studies, there is either no correlation or a weak correlation between damage and disability in early RA. This absence of correlation is explained by the 'J-shaped' curve of disability with disease duration in early RA. As disease duration increases, the correlation between damage and disability becomes more obvious with a correlation coefficient between 0.31 and 0.75.[1] For instance, Welsing et al showed that functional capacity in 378 patients with early RA (< 1 year) was mainly determined by disease activity in the beginning of the disease (up to 6 years after study start), and by joint damage later in the disease (more than 6 years after study start).[2] The results reported by Drossaers-Backer et al are quite different.[3] These authors studied 105 patients for the relative contribution of disease activity and joint destruction to functional capacity. After 12 years, there was a strong correlation between joint damage and disability with dominant effects from large joint damage. However, even in longstanding RA, disease activity was the main determinant of disability. Wolfe reported similar findings.[4] Even in RA patients in remission, functional disability is most strongly related to the presence of pain and, to a lesser extent, to disease activity, radiographic joint damage and disease duration.[5] Nevertheless, avoiding or reducing joint damage in early arthritis is likely to maintain function.

RADIOGRAPHIC JOINT DAMAGE IN EARLY RA

The highly destructive nature of the disease is manifested by the development of erosions in 10–26% patients with RA within 3 months of disease onset.[6,7] Within 2 years, about 75% of patients with RA have erosive joint damage.[8] Patients with non-erosive disease by 2 years are unlikely to show subsequent erosive damage.[9] However, only 5% of 502 patients and 4% of 181 patients with early arthritis had no erosions after 5 and 10 years, respectively.[10,11] The joints of the feet showed damage more often and earlier than the joints of the hands, and the fifth metatarsophalangeal (MTP) joint was the most commonly eroded joint in early disease.[10,11] Joint damage increases with disease duration. The results for the rate of radiographic progression are still controversial. Some investigators have shown a most pronounced progression early in the disease[2,11], whereas others have shown a linear progression.[3,10] Two studies have divided patients with RA into four to five different groups depending on their pattern of radiographic progression.[12,13]

Prognostic factors of joint damage

Numerous studies have documented prognostic factors associated with progression of radiographic joint damage in early arthritis. Prognostic factors available at the time of diagnosis that have been associated with progression of joint damage in early RA include the presence of IgM rheumatoid factor (RF), anticitrulline (anti-CCP) antibodies, human leukocyte antigen (HLA) shared epitope (SE), C-reactive protein (CRP), disease activity and baseline radiographic damage.

The presence of IgM RF as a good predictor of a bad radiological outcome has been documented by many studies.[1,14,17] In the 439 cases from the UK-based Norfolk