Understanding Function in RA: An Update on “Treat to Target”

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RA ranks among the common chronic illnesses with the worst quality of life.

ABSTRACT: Joint pain and joint damage resulting from rheumatoid arthritis (RA) lead to functional limitations that reduce patients’ quality of life and make activities of daily living difficult. Recent guidelines have emphasized treat to target strategies for minimizing joint destruction in patients with RA and maximizing their functional well-being, but these strategies have not been tested in usual-care settings and have not focused on the functional improvements that occur when disease activity is reduced by medication. The Routine Assessment of Patient Index Data 3, a composite of patient self-reported measures, includes a multidimensional HAQ (MDHAQ). The MDHAQ provides questions to determine patients’ ability to perform activities related to function. Additional treatment strategies that focus on directly addressing functional disabilities may be needed. (J Musculoskel Med. 2012;29:10-12)

Rheumatoid arthritis (RA), which affects an estimated 1.3 million Americans, is a complex inflammatory disorder associated with synovitis and joint destruction.1-3 Both joint pain and joint damage resulting from RA lead to functional limitations that reduce patients’ quality of life and make activities of daily living difficult.

For example, RA is associated with significant morbidity, a reduced life span, and lost work productivity,4,5 and it ranks among the common chronic illnesses with the worst quality of life.6 Within 10 years of diagnosis, 35% of patients with RA will be work-disabled.7 In addition to its toll on patients’ physical and emotional health, RA is associated with losses to the US economy that were estimated at $58 billion in 2008.5
New RA management strategies have “treat to target” objectives, but determining which measure to use to assess disease activity and response to therapy has been a challenge. In the past, clinical assessment of joint swelling and tenderness, along with imaging and laboratory studies, formed the basis of decision making. However, these tools offered limited information about the impact of synovitis on a patient’s function.

This is the first article in a 5-part series designed to provide a practical approach to better understanding of function in RA. An update on treat to target is offered in this introductory article. Upcoming articles will discuss the importance of function in RA, how function is assessed in RA, how functional assessment may be incorporated into clinical practice, and the role of the nurse in multidisciplinary RA care.

**Treat to Target Strategies in Patients With RA**

The importance of treat to target strategies for minimizing joint destruction in patients with RA and maximizing their functional well-being has been emphasized in recent guidelines from the American College of Rheumatology (ACR), the European League Against Rheumatism (EULAR), and an international task force.6-10 These recommendations are based on several studies that have shown improved outcomes for patients with RA based on quantitative measures of disease activity and treatment with intensive predetermined regimens of oral disease-modifying antirheumatic drugs (DMARDs) and biologic agents.11-16 An incentive to perform quantitative clinical disease activity measures in the routine care of patients with RA also is driven by quality of care initiatives that require quantitative measures of disease activity.

**RA Disease Activity and Functional Assessments**

Treat to target studies have shown that patients with RA achieve lower levels of disease activity and a better quality of life with intensive therapy and quantitative monitoring of disease activity. However, treat to target strategies have not been tested in usual-care settings and have not focused on the functional improvements that occur when disease activity is reduced by medication. This highlights important differences between RA disease activity as measured by instruments such as the 28-joint Disease Activity Score (DAS 28) and the Clinical Disease Activity Index (CDAI) and the functional ability of patients with RA as measured by instruments such as a Health Assessment Questionnaire (HAQ) and the Routine Assessment of Patient Index Data 3 (RAPID3).17-22 The RAPID3 is a composite of patient self-reported measures that includes a multidimensional HAQ (MDHAQ), and the DAS 28 and CDAI are primarily physician-reported measures that rely on physician assessments of tender and swollen joints. Techniques for assessing tender and swollen joints are demonstrated in an instructional video, “Performing a Standardized Joint Count in Rheumatoid Arthritis,” and in an article.23

The 2010 criteria for the diagnosis of RA established by the ACR and the EULAR were developed to promote the diagnosis of early disease.24 The original 1987 ACR criteria for a diagnosis of RA included radiographic signs that typically occur with chronic disease.25 The differences between the old and new criteria for a diagnosis of RA highlight an important distinction between reversible synovial inflammation as emphasized by the new ACR/EULAR criteria and irreversible structural joint changes that are part of the 1987 ACR criteria. With reversible inflammation of the joint, there is a greater probability that medications will lead to functional improvements. In contrast, when irreversible structural changes have occurred, occupational therapy probably is the best way to improve function for these patients with RA.

Some authors have proposed that the RAPID3 may be used as a measure of RA disease activity for targeted treatment decisions.21,22 In addition to the patient-reported MDHAQ functional questions, the RAPID3 is a composite score that also includes visual analog scales (VAS) of patient pain and patient global arthritis disease.

The MDHAQ consists of a set of questions that patients answer to determine their ability to perform activities related to function. Several functional domains are assessed by the MDHAQ; questions for each domain include dressing and grooming, arising, eating, walking, hygiene, grip, and reach (Figure). For example, the MDHAQ asks patients whether they have no, some, or much difficulty in getting in and out of bed. The functional domains of the MDHAQ will be demonstrated in a new video program, “A Practical Understanding of Function in Rheumatoid Arthritis” (see Box, “Video Demonstrates In-Office Assessment of Function in Patients With RA”).

**Video Demonstrates In-Office Assessment of Function in Patients With RA**

“A Practical Understanding of Function in Rheumatoid Arthritis,” a new video program, demonstrates in-office assessment of function in patients with the condition. The video provides relevant information for determining more targeted and individualized
treatment and emphasizes the various roles of medications and occupational therapy in those treatment strategies.

The VAS that are part of the RAPID3 ask patients to rate their pain and arthritis disease on a scale of 0 to 10 (10 being the worst). There is a moderately good correlation between the RAPID3 and DAS 28 measures, although they have important differences. While there may be a good correlation between joint pain and swelling and a patient’s functional ability as measured by tools such as the MDHAQ, some patients with good DAS 28 scores clearly have poor scores on the RAPID3. Our own research findings suggest that among patients with RA in DAS 28 remission, as many as 40% report moderate or severe functional disabilities as assessed by the RAPID3.

The Tight Control for Rheumatoid Arthritis study, which used a treat to target strategy, and other studies have demonstrated that adjusting DMARD therapy to improve disease activity using the DAS 28 improves patient disease activity and quality of life. However, oral DMARDs and biologic agents probably will not improve the functional abilities of patients with RA in DAS 28 remission who also have high RAPID3 scores and chronic damage resulting from RA and other diseases. Therefore, additional treatment strategies that focus on directly addressing functional disabilities, such as evaluation and treatment by an occupational therapist, may be needed to treat patients with RA who have good DAS 28 scores but poor scores on assessments such as the RAPID3, which emphasize functional abilities.

Summary
The MDHAQ is a validated tool that provides important information for assessing the functional abilities of patients with RA. This tool can be incorporated into routine clinical practice easily and provides information that differs from that provided by quantitative disease activity measurements such as the DAS 28 and CDAI. Next in the series: a discussion of the importance of function in RA.

References:
REFERENCES


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