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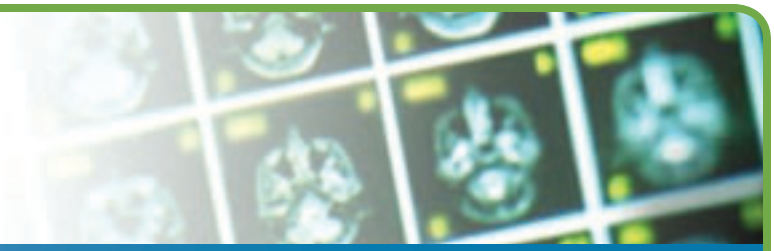

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The Challenge of Inflammatory Arthritis

by Christina J. Ansted, MPH

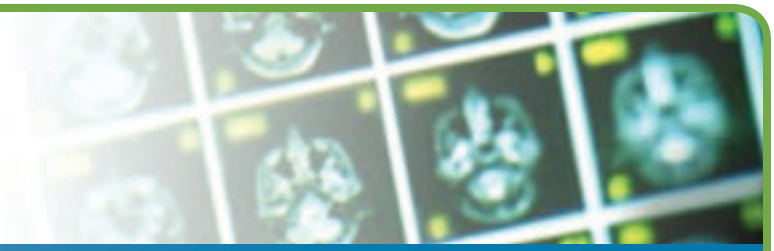
What is arthritis? Is it just the name for what happens when your joints hurt, or is it when you can't hold a pen long enough to write a letter? While the common tendency is to think of arthritis as something that happens to the elderly or as a long-term consequence of an injury, the reality is that arthritis affects people at any age and manifests in many forms. The term "arthritis" is a broad sweep, which includes clinical conditions of two etiologies—inflammatory and noninflammatory.

Noninflammatory arthritis describes conditions like osteoarthritis, in which the joint is not devoid of inflammatory mediators. In contrast, with inflammatory arthritis, an overactive immune response results in the presence of white blood cells in the joint fluid. Common forms of inflammatory arthritis include rheumatoid arthritis (RA) and gout.[1]

There is no question that the incidence of arthritis increases with age, but nearly three of every five sufferers are under age 65. Chronic arthritis affects more than 42 million Americans, including 300,000 children. By 2020, the CDC estimates that 60 million people will be affected, and that more than 11 million will be disabled.[2] The idea of early intervention and treatment of inflammatory arthritis as having a positive effect on disease outcomes and remission has been gaining momentum over the last 10 years. Long-term control or remission of RA may be possible with very early treatment. However, no definitive therapeutic strategy has been determined.[3]

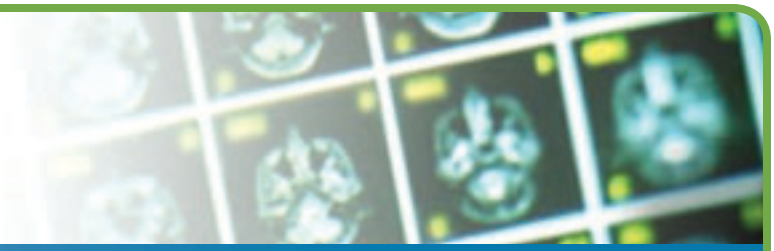
Treatments for inflammatory arthritis include DMARDs (disease-modifying antirheumatic drugs), immunosuppressants, and the newer biologics. DMARDs are used to slow down disease progression. Immunosuppressants generally work broadly and nonspecifically to dampen the immune response. Biologics target specific components of the immune system and include BRMs (biologic response modifiers), and TNF (tumor necrosis factor) blockers, also known as anti-TNF therapy. Although biologics offer increased response and remission rates, there is a slightly elevated risk of serious infection. In particular, anti–TNF agents are associated with an increased risk of tuberculosis.[4] There has also been concern as to whether the use of biologic agents can increase the risk of developing cancer, but studies have shown the overall risk of malignancy in the first years after starting anti-TNF therapy is not increased in RA patients.[4,5,6] According to a statement by Dr. Frederick Wolfe of National Data Bank for Rheumatic Diseases and University of Kansas School of Medicine, Wichita, "the overall risk of cancer is small in rheumatoid arthritis patients. The overall effect is to say things are much the same as they have been over the last several decades. That is reassuring with these new drugs.…I don't think people should be concerned. It may be these drugs turn out to be safe. It looks as though they are, and I am not particularly worried."[7] Although the risk–benefit ratio is greatly in favor of early and aggressive therapy, risk reduction strategies with biologic agents are essential. Physicians must weigh the risk of the treatment with the benefit.

With the widespread use of biologics and concerns over their safety, guidelines are being developed to guide practitioners who prescribe them. To minimize the risk associated with these drugs, careful patient selection is necessary. In addition to judicious patient selection, risk associated with these agents needs to be monitored and tracked on a regular basis. Another useful resource includes the Centers for Disease Control immunization guidelines for the use of influenza and pneumococcal vaccination in patients being managed with biologics, available at http://www.cdc.gov. Screening and evaluation for chronic viral infections such as hepatitis and HIV are part of good medical practice and standard protocols for screening at-risk individuals should be followed.[8]



Guidelines for the treatment of RA are available from various resources, including the ACR (American College of Rheumatology) Guidelines for the Management of Rheumatoid Arthritis, which is available at http://www.rheumatology.org/publications/guidelines/ra-mgmt/ra-mgmt.asp. Also available to the rheumatologist are various tools for diagnosis and measurement of disease status. The CDAI (Crohn's Disease Activity Index) is used for quantifying disease progression, or lack of progression. When calculating the CDAI, a useful resource is the CDAI calculator available at http://www.ibdjohn.com/cdai/. The Disease Activity Score or "DAS" is another valuable tool for measuring disease activity in patients with rheumatoid arthritis. A resource for calculation of the DAS can be found at http://www.das-score.nl/www.das-score.nl/dasculators.html.

There is little doubt that the management of inflammatory arthritis is a complex matrix of managing symptoms with risk not only associated with disease progression, but also with complications that arise from drug therapy. Rheumatoid arthritis is a chronic and painful disease that can lead to serious long-term disability. RA is often under-rated for disease severity by the public, and patients and families must be educated on the profound impact this disease can have on quality of life, and the implications for side effects when undergoing pharmaceutical treatments. The goal of arthritis therapy is to achieve the lowest possible level of disease activity, minimize joint damage, and enhance physical function and quality of life. Optimal clinical management of RA requires a comprehensive program that combines medical, social, and emotional support for the patient.[9]



References

1 Carol L. Arthritis. FDA Consumer 2000;34: Magazine excerpt. Available at http://www.questia.com/googleScholar.qst;jsessionid=K8QMKRXFZLk07WGTjJpshHdhTyd6KDB7GnymvMWcj5f8zqkRbNqN!525030163!-1226680035?docId=5002345903

2 MedicineNet.com. Available at http://www.medicinenet.com/script/main/art.asp?articlekey=16982

3 Finckh A, Bansback N, Marra CA, Anis AH, Michaud K, Lubin S, White M, Sizto S, Liang MH. Treatment of Very Early Rheumatoid Arthritis With Symptomatic Therapy, Disease-Modifying Antirheumatic Drugs, or Biologic Agents - A Cost-Effectiveness Analysis. *Ann Intern Med* 2009 151:612-621.

4 Genoveese M. Combining Conventional DMARDs and Biologic Agents for RA Treatment. Available at http://www.raoutlook.org/expert_practice/article_pf.cfm?id=61

5 Elbek O, Uyar M, Aydin N, Bayram N, Bayram S, Dikensoy O. Increased risk of tuberculosis in patients treated with antitumor necrosis factor alpha. *Clin Rheumatol* 2008;28:421-426.

6 Ding T, Deighton C. Complications of Anti-TNF Therapies: Do Anti-TNF Drugs Increase the Risk of Malignancies? *Future Rheumatol* 2007;2:587-597. Available at http://www.medscape.com/viewarticle/568635_8

7 Arthritis Foundation. Biologics and Cancer Risk: Is There a Relationship? 2009. Available at http://www.arthritis.org/biologics-cancer.php

8 Cush JJ, Dao KH. Perspectives on Safety vs. Benefits of Biologic Therapies. MedscapeCME 2007. Available at http://cme.medscape.com/viewarticle/553515.

9 Matsumoto AK, Bathon J, Bingham CO. Rheumatoid Arthritis Treatment. The Johns Hopkins Arthritis Center. Available at http://www.hopkins-arthritis.org/arthritis-info/rheumatoid-arthritis/rheum_treat.html