



February 2023

ELDER CARE

A Resource for Interprofessional Providers

Rheumatoid Arthritis: Issues for Older Adults

Adam J. Berlinberg, MD; Jaren R. Trost, MD; and Jawad Bilal, MD, Department of Medicine, University of Arizona College of Medicine

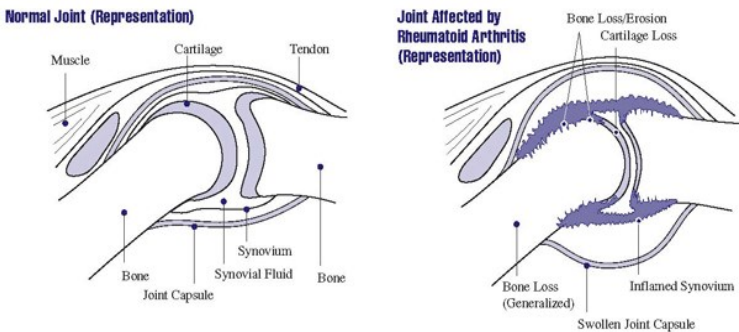
Rheumatoid arthritis (RA) is an inflammatory autoimmune disease that causes pain, swelling, stiffness, and loss of function in joints. RA tends to be symmetrical in its distribution, meaning joints on both sides of the body are generally involved.

In RA the joint synovium (the tissue that lines the inside of the joints) becomes thickened, resulting in swelling and pain around the joint. Over time, the joint cartilage and bones themselves become damaged. Without treatment, joint laxity and deformity can occur. Since joint damage in RA cannot be reversed, early diagnosis and disease-modifying therapy is the key to successful RA management.

Treatment - General Approach

A number of treatment approaches are used in the management of RA, with a focus on relieving pain, reducing inflammation, slowing down joint damage, and improving functional ability (Table 1). Knowledge of medical therapies is especially important when managing RA in older adults because medication side effects can impair health and function. Given that older adults often have medical problems in addition to RA, less aggressive treatment is generally started first and clinicians should then be alert for development of side effects.

Figure 1. Normal Joint and Joint Affected by Rheumatoid Arthritis



Source: National Institute of Arthritis and Musculoskeletal and Skin Disease
http://www.niams.nih.gov/health_info/rheumatic_disease/#ra_15

Table 1. Goals of Treatment in RA
<ul style="list-style-type: none"> • Relieve pain • Reduce inflammation • Slow down or stop joint damage • Improve a sense of well-being and functional status

Prevalence

An estimated 1.9 million people, about 0.6% of the US population, have RA. Women have a higher prevalence than men, with a female-to-male ratio of about 3:1.

RA in women tends to initially be diagnosed between the ages of 30 and 60, while men tend to be diagnosed in their 60s or later. Overall, RA is present in about 1.3 million older adults (2% of people over 60 years of age), with most of those individuals being women over the age of 70. Disease activity and functional status tends to be worse among African-Americans and Hispanics than in non-Hispanic whites.

Non-Pharmacological Therapy

Careful stretching and range-of-motion exercises to prevent contractures and muscle atrophy, are useful, along with weight-bearing exercises to prevent loss of bone mass. However, joint rest and protection of joint integrity are equally important. Supportive and functional splinting can be considered when joint inflammation or deformity is present. Patients with advanced disease and severe limitations of joint function can benefit from using assistive devices like jar openers and door handle extenders. These non-drug treatments can be optimized when prescribed under supervision of physical and occupational therapists.

Healthy diet and weight management should be addressed. Weight loss is important for overweight patients, to reduce load on joints. Patients with RA may experience anorexia that can lead to poor nutrition; a nutritional consult can help. Adequate sleep is also important, as lack of sleep can worsen RA symptoms. Patients should also notice whether climate (e.g., dry vs humid) influences symptoms and, if possible, adjust living situations to optimize function.

TIPS

- Be alert for symptoms indicating RA and institute appropriate diagnostic and treatment plans. Older adults with RA tend to be underdiagnosed and undertreated.
- Emphasize the importance of sleep. Studies have shown that lack of sleep can worsen the symptoms of RA.
- Recommend that patients exercise as much as possible. Physical activity along with range of motion exercises and stretching can help to maintain joint mobility, improve mood, and help patients sleep better. Physical and occupational therapy can help.
- Monitor older adults for side effects of RA medications.

ELDER CARE

Continued from front page

Pharmacological Therapy

Drug therapy in RA is aimed at reducing inflammation and pain in joints. Several classes of medication are used to treat RA (Table 2), all of which act either by slowing inflammatory processes or by relieving pain.

Corticosteroids (orally or injected into joints) and nonsteroidal anti-inflammatory drugs (NSAIDs) are often prescribed to reduce inflammation. However, oral steroids in older adults can reduce bone mass, cause cataracts, and impair glucose tolerance and immune status. NSAIDs can impair renal function and cause gastrointestinal bleeding. As a result, other medications are often used (Table 2) in an attempt to reduce steroid-related and NSAID-related adverse effects.

Disease-modifying anti-rheumatic drugs (DMARDs) are also widely used (Table 2). Each of the individual DMARDs has its own unique adverse effect profile, but common adverse effects caused by drugs in this class involve hematologic, hepatic, and renal impairment.

Table 2. Medications Commonly Used for Treatment of RA

Nonsteroidal Anti-Inflammatory Drugs

aspirin, celecoxib, ibuprofen, naproxen

Disease Modifying Anti-Rheumatic Drugs

hydroxychloroquine, leflunomide, methotrexate, sulfasalazine

Biologics

abatacept, adalimumab, anakinra, certolizumab, etanercept, golimumab, infliximab, rituximab, toclizumab

Biosimilars

adalimumab-atto, etanercept-szszs, infliximab-dyyb

Analgesics

acetaminophen, opioids, tramadol, duloxetine

In recent years, “biologics” and “biosimilars” (Table 3) have been prescribed with increasing frequency. While effective, these agents impair immune function and carry an increased risk of psoriasis, systemic infections, and cancers.

Analgesics used for pain relief are also listed in Table 3. Opioids should be avoided in older adults when possible to prevent falls, constipation, and cognitive dysfunction.

Special Issues for Older Adults

New research is being published that considers RA developing in older adults as a separate entity, referred to as “Elderly Onset Rheumatoid Arthritis (EORA).” Numerous risk factors have been identified for EORA, including smoking, periodontitis, and viral infections. There may also be an association with menopause and hormonal changes.

Individuals with EORA are at higher risk than younger RA patients for falls and decline in functional status. This emphasizes the importance of early diagnosis and treatment of EORA to prevent these complications.

A related concern is that older adults diagnosed with RA tend to be treated less aggressively than younger RA patients. For example, while methotrexate use among older RA patients is slightly higher compared to younger patients, the dosage is generally lower. Similarly, the percentage of older adults on multiple DMARDs or receiving biologic medications is lower than in younger patients, even though these drugs (biologics in particular) have been shown to have similar efficacy in older and younger individuals. In the absence of drug toxicity or comorbidities preventing treatment, such as frailty syndrome, clinicians caring for older adults with RA should provide the treatments needed to control symptoms and improve quality of life.

References and Resources

- Arthritis Foundation. Rheumatoid Arthritis. <http://www.arthritis.org/about-arthritis/types/rheumatoid-arthritis/>.
- Greenberg, J. D., Spruill, T., Shan, Y., Reed, G., et al. Racial and ethnic disparities in disease activity in rheumatoid arthritis patients. *Am J Med.* 2013; 26(12):1089–1098.
- National Institute of Arthritis and Musculoskeletal and Skin Diseases, US Dept. of Health and Human Services, National Institute of Health. Handout on Health: Rheumatoid Arthritis. NIH Publication No. 16-4179. http://www.niams.nih.gov/health_info/rheumatic_disease/#ra_15.
- Sugihara T, Harigai M. Targeting Low Disease Activity in Elderly-Onset Rheumatoid Arthritis: Current and Future Roles of Biological Disease-Modifying Antirheumatic Drugs. *Drugs & Aging.* 2016; 33:97-107.
- Tutuncu Z, Reed G, Kremer J, Kavanaugh A. Do patients with older-onset rheumatoid arthritis receive less aggressive treatment? *Ann Rheum Dis.* 2006;65(9):1226-1220.
- Woodworth T, Ranganath V, Furst D. Rheumatoid arthritis in the elderly: recent advances in understanding the pathogenesis, risk factors, comorbidities and risk-benefit of treatments. *Aging Health.* 2013; 9(2):167-178.
- Yun H, Xie F, Delzell E, Chen L, Yang S, Saag KG, Joseph G, Harrison D, Curtis JR. The comparative effectiveness of biologics among older adults and disabled rheumatoid arthritis patients in the Medicare population. *Br J Clin Pharmacol.* 2015; 80(6):1447-57.

Interprofessional care improves the outcomes of older adults with complex health problems.

Editors: Mindy Fain, MD; Jane Mohler, NP-c, MPH, PhD; and Barry D. Weiss, MD

Interprofessional Associate Editors: Tracy Carroll, PT, CHT, MPH; David Coon, PhD; Marilyn Gilbert, MS, CHES;

Jeannie Lee, PharmD, BCPS; Marisa Menchola, PhD; Francisco Moreno, MD; Lisa O’Neill, DBH, MPH; Floribella Redondo; Laura Vitkus, BA

The University of Arizona, PO Box 245069, Tucson, AZ 85724-5069 | (520) 626-5800 | <http://aging.arizona.edu>

Supported by: Donald W. Reynolds Foundation, Arizona Geriatrics Workforce Enhancement Program and the University of Arizona Center on Aging

This project was supported by the Health Resources and Services Administration (HRSA) of the U.S. Department of Health and Human Services (HHS) under grant number U1QHP28721, Arizona Geriatrics Workforce Enhancement Program. This information or content and conclusions are those of the author and should not be construed as the official position or policy of, nor should any endorsements be inferred by HRSA, HHS or the U.S. Government.