

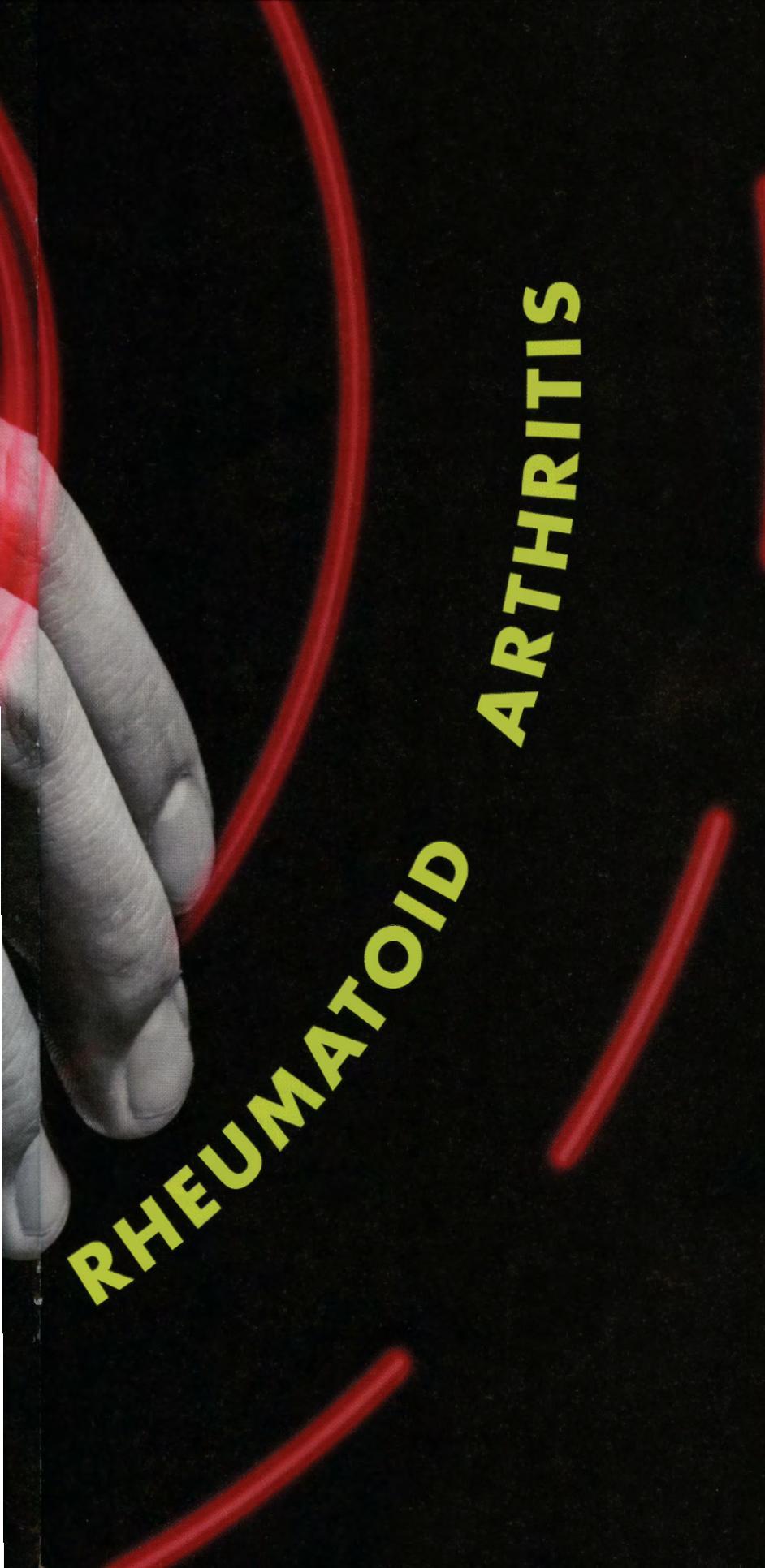
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JOINT EFFORT

TARGETING



By Mark Harris

Many people might be inclined to think of arthritis as just one of those chronic conditions that come with aging—an uncomfortable but not necessarily life-altering problem.

In reality, arthritis is the most common cause of disability in the United States, affecting more than 50 million people.¹ While symptoms can vary in intensity, patients with arthritis can experience joint pain, swelling, and stiffness that often significantly limit their activities or even prove debilitating.

Moreover, arthritis is actually a popular term for a wide variety of joint diseases and conditions. In fact, there are more than 100 different types of arthritis and related conditions, such as osteoarthritis, psoriatic arthritis, fibromyalgia, and gout, just to name a few.²

Inflammation information

One of the more severe types of arthritis is rheumatoid arthritis (RA). Rheumatoid arthritis is an autoimmune disease that affects more than 1.3 million Americans, according to the American College of Rheumatology (ACR). Typically, the condition is diagnosed after age 40, but can affect any age group. Approximately three-quarters of those diagnosed with RA are women.³

Mostly affecting the wrists and small joints of the hands and feet, including the knuckles and the middle joints of the fingers, RA is characterized by an inflammatory process triggered by the immune system that causes the tissue lining inside joints, called the *synovium*, to thicken. Consequently, as the synovium thickens, swelling and pain can occur in and around the joints.³ This inflammatory process can lead to the destruction of joint cartilage and eventually the underlying bone.³ Beyond doing damage to the joints,



RA can harm the body in other significant ways, affecting the eyes, lungs, heart, blood vessels, and skin.⁴

Worth noting is the fact that the disease process in RA differs from osteoarthritis, which is the most common form of arthritis, affecting 27 million Americans.⁵ Osteoarthritis is not always associated with inflammation; it is rather primarily a degenerative condition in which the cartilage that caps the bones in joints gradually wears away. The pathophysiology of osteoarthritis is largely considered a consequence of mechanical wear and tear on the body, and not autoimmune in nature.⁶

“Rheumatoid arthritis is a systemic autoimmune condition with arthritis as a key manifestation, but it’s accompanied by systemic inflammation,” explains Jasvinder Singh, MD, MPH, a rheumatologist in the Division of Clinical Immunology and Rheumatology at the University of Alabama-Birmingham (UAB) School of Medicine. “That [inflammation] also puts patients at risk for early cardiovascular disease, infections, and sometimes a slight increase in risks of certain cancers if the disease is not adequately treated.”

In fact, cardiovascular disease is the leading cause of death in RA patients, with the associated inflammation believed to be a primary contributor to atherosclerosis, a degenerative disease of the arteries. Rheumatoid arthritis may also contribute to vasculitis (inflammation of blood vessels); certain cardiopulmonary diseases, such as pleurisy (inflammation of the lining of the lungs and rib cage); interstitial lung disease; and other related conditions.⁷

One hallmark of RA is morning stiffness, sometimes lasting for hours. While joint stiffness occurs in other forms of arthritis, these symptoms can be far more pronounced with RA. Another outward manifestation of RA in some patients is the appear-

ance of rheumatoid nodules, firm lumps that grow close to joints under the skin and are often seen on the arms, elbows, knees, and feet. In some cases, they can even develop in the lungs, heart, or the sclera of the eye.⁷

As a condition that affects the whole body, RA may also cause patients to experience significant fatigue, malaise, and clinical depression.⁷ Overall, some 70 percent of patients consider RA a barrier to living a fully productive life.⁸

Wrist guards

Fortunately, while RA is a lifelong disease, a great deal can be done to manage the condition and mitigate the active periods of pain and inflammation. In fact, RA treatment has made notable strides over the past quarter century in slowing down the disease process and even bringing it into remission.

“We are much more aggressive today in identifying rheumatoid disease early and intervening to prevent the kind of deforming, claw-hand abnormalities associated with the condition,” says Jonathan D. Krant, MD, chief of rheumatology at Adirondack Health, a regional health care provider based in Saranac Lake, New York. “In fact, we can virtually guarantee that with aggressive efforts we can put the disease to rest rather quickly, within three months of diagnosis in a majority of cases.”

One diagnostic challenge with RA is that it may begin with vague or mild symptoms, such as achy joints or moderate morning stiffness. Symptoms may come and go. When the primary care provider (or worried patient) suspects an RA diagnosis, however, a rheumatologist can usually make that diagnosis quickly.

“This rapid diagnosis is based upon, first of all, the clinical impression,” says Dr. Krant. “We look for tender and small joints, protracted morning stiffness, and symptoms lasting for greater than six weeks before assigning a clinical diagnosis.”

Notably, there is no single laboratory or blood test to confirm an RA diagno-

sis. Rather, as Dr. Krant notes, rheumatologists base their diagnosis on multiple factors, including personal and family medical history, signs and symptoms in the physical examination, and diagnostic testing.

Rheum service

Regardless of the level of RA disease activity, the treatment strategy favored by most rheumatologists today is called *treat to target*.⁹ The goal of the treat-to-target approach is to significantly reduce or achieve remission of any signs and symptoms of inflammatory disease activity in patients. As such, the strategy entails frequent measurements of disease activity, with medications and doses adjusted as needed by the rheumatologist, based on established protocols.¹⁰

In a sense, the treat-to-target approach represents an active, ongoing fine-tuning of treatment and medications until the goals of therapy are achieved.

Typically, rheumatologists follow a sequential approach in prescribing RA medications. This includes short-term use of

a low-dose corticosteroid medication, followed by a class of medications called *disease-modifying antirheumatic drugs* (DMARDs). Depending on how the disease progresses, rheumatologists may also introduce a subcategory of DMARDs called *biologic agents* later in treatment.

Corticosteroids represent a bridge therapy in treatment, explains Dr. Krant. The drugs offer patients more immediate pain relief while they begin taking DMARD prescriptions, which take longer to work.

“The hallmark of therapy today is to initiate a trial of steroids while ordering blood tests, such as the IgM [immunoglobulin M] rheumatoid factor and the anti-CCP [cyclic citrullinated peptides] antibody tests,” explains Dr. Krant. Both tests seek to identify the proteins and antibodies for which they are respectively named. The presence of these substances can indicate the presence of RA. “These are diagnostic [indicators] that are often positive and very robust in aggressively active disease. But they’re not always present with signs of disease activity. We also obtain X-rays that look for joint space narrowing and

Joint defense

DMARDs. An acronym for *disease-modifying anti-rheumatic drugs*, DMARDs work to modify the course of the disease. Traditional DMARDs include methotrexate, hydroxychloroquine, and sulfasalazine. They are taken by mouth, self-injected, or given as an infusion.¹⁷

Corticosteroids. Corticosteroid medications, including prednisone, prednisolone, and methylprednisolone, are potent, quick-acting anti-inflammatory medications. These medications may help bring potentially damaging inflammation under control while waiting for nonsteroidal anti-inflammatory drugs (NSAIDs) and DMARDs to take effect. Because of side-effect risks, physicians prefer to prescribe corticosteroids in low doses for as short a time as possible.¹⁷

Biologics. These drugs are a subset of DMARDs. Biologics may work more quickly than traditional DMARDs, and are injected or given by infusion. In many cases, a biologic can slow, modify, or stop the disease—even when other treatments have provided little help.¹⁷

JAK inhibitors. A new subcategory of DMARDs known as *JAK inhibitors* block the Janus kinase, or JAK, pathways, which are involved in the body’s immune response.¹⁷

Feel the burn

What are the results of joint inflammation?

Cartilage acts as a shock absorber between joints. When that cartilage wears down, and inflammation is uncontrolled, joint deformities will develop.¹⁸ Eventually, the bone itself erodes, which can lead to fusion of the joint, the body's effort to protect itself from the persistent irritation of excessive inflammation.¹⁸

Unfortunately, the effects do not end there. The immune system cells and substances that mediate this process are not only produced locally in the joints but also circulated in the body, which then causes systemic symptoms¹⁸ characteristic of rheumatoid arthritis.

marginal erosions present in articular bone. Again, we base our treatment decisions on clinical signs and symptoms, not confirmatory blood tests and plain film [X-rays]," he says. "However, if there are in fact marginal erosions and joint space narrowing seen on plain film, we are prompted into action faster—and more aggressively—than if these features are absent."

Typically, a steroid (e.g., prednisone) is prescribed for two to four weeks, says Dr. Krant. "Should the symptoms persist, particularly stiffness, aching, tenderness, and swelling in the small joints of the hand and wrist, we'll switch to initiate a disease modifier," he says. Such drugs include methotrexate (Trexall), sulfasalazine (Azulfidine), hydroxychloroquine (Plaquenil), and so forth, notes Dr. Krant. "They're not biologic drugs—they're small molecules—but are often effective in quelling the signs and symptoms of disease activity over the course of perhaps six weeks to three months."

After this initial treatment period, the patient's progress is reevaluated. "At

the three-month time frame, we'll do a comprehensive analysis again," says

Dr. Krant. "If needed, we might start thinking then about a biologic drug. That's a complex discussion because insurance carriers don't always like to approve the use of these very expensive drugs. But as necessary we'll prescribe a biologic. We then wait another three months to look for resolution in tenderness, swelling, stiffness, and fatigue."

This sequential, multiple-drug approach is described as *combination therapy*, in which patients are prescribed one or more DMARDs or a DMARD combined with a biologic drug. Once a patient's treatment goals are achieved, medical management then seeks to maintain what rheumatologists call *tight control* over the disease.

Firm grip on disease activity

While monitoring treatment, rheumatologists use several quality assessment tools to measure disease activity. These include the disease activity score 28 (DAS28) and the routine assessment of patient index data 3 (RAPID3) assessment, among others. The former is an assessment tool used to score joint function and disease activity, while the latter includes a checklist of activities patients evaluate as a measure of their daily functioning.⁹ These tools can provide clinical guidance on whether to withdraw a disease modifier (e.g., methotrexate) or continue combination therapy, notes Dr. Krant.

Notably, the concept of tight control is one borrowed from the management of other chronic diseases, such as diabetes. It involves regular, close monitoring of patients over time and prompt adjust-

ments in medications when or if signs of disease activity worsen.

All in all, the treat-to-target approach has proven effective for many patients. "Our diagnostic efforts and early intervention can usually result in a normalization of joint function," concludes Dr. Krant. "In some cases, pulmonary and cardiovascular disease activity reflecting RA will also modify or modulate under the influence of these very potent molecules we're using. Orthopedically, over time we also now send far fewer patients to revision arthroplasty [i.e., joint surgery] using DMARD and biologic therapies."

Knuckle drags

Admittedly, the use of prescription medications with potentially serious side effects poses the challenge of ensuring patients can comply with recommended treatment plans. This is a challenge sometimes compounded by expensive out-of-pocket medication costs, co-pays, and other issues.

Another challenge is getting patients into treatment as early as possible. Indeed, early intervention remains a key treatment challenge, observes Dr. Singh, a coauthor of the "2015 American College of Rheumatology Guideline for the Treatment of Rheumatoid Arthritis."¹¹

"There are many reasons why patient diagnosis may be delayed," says Dr. Singh. "Sometimes the symptoms are not typical, or patients may not realize or be aware of the disease and wait too long. Sometimes patients do not go to their primary care provider, and therefore, treatment is delayed. Occasionally they also wait to get to a specialist, especially in rural areas and other places where they have difficulty accessing care because of the distance."

Patients often stay in denial about the disease, adds Dr. Krant. "They might think they have a virus, or something's going on that will resolve itself." Because the symptoms come and go, patients put it out of their minds rather quickly.

With such concerns in mind, Dr. Krant would like to see the medical community promote greater public awareness of early

signs and symptoms of RA. He especially sees value in the idea of future targeted initiatives to promote basic RA awareness among such groups as hairdressers, manicurists, and others who interact closely with the public.

“If, for example, someone with symptoms of joint swelling, stiffness, and pain sees a manicurist who has been alerted by a public health initiative to the importance of bringing those symptoms to the attention of a physician, it could make a difference,” he remarks.

Generally, rheumatologists agree that early intervention remains essential to good outcomes. “The key is for patients and providers to be aware that this is a systemic, autoimmune condition, [and] that the earlier we diagnose, the earlier we treat aggressively, the better the outcomes are in the long run,” concludes Dr. Singh.

Hand-in-hand health

In a sense, RA patients face a lifetime journey toward wellness, one in which not only medications but also lifestyle recommendations related to diet, exercise, and other factors influence the course and impact of a disease.

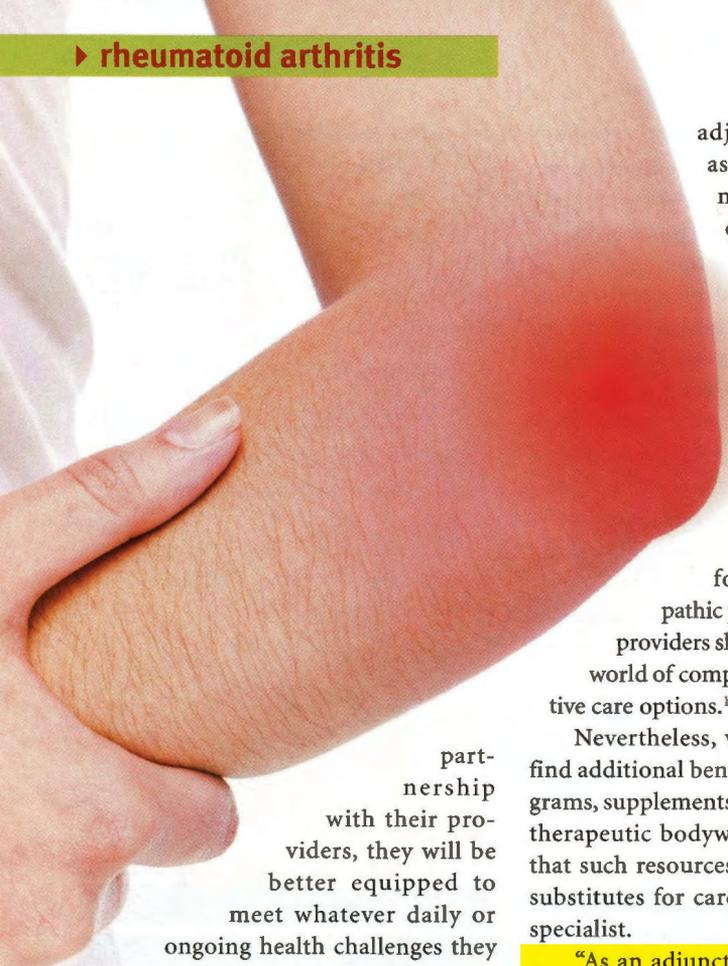
Beyond regular checkups with their rheumatologist, patients need to take responsibility for their own health care, assisted as needed by additional health care providers. The rheumatology care team may include not only the rheumatologist but such providers as a physical therapist, occupational therapist, registered dietitian, pharmacist, clinical nurse specialist, psychologist, and others. Additionally, the CMA (AAMA) might also act in the roles of panel manager, patient navigator, health coach, community health worker, and patient care coordinator.¹² These professionals can help patients stay educated and informed about their health by providing

counsel on diet, exercise, stress management, and other relevant health issues.

What lifestyle and related care issues are key for RA patients? The Johns Hopkins Arthritis Center identifies generally accepted lifestyle recommendations for ongoing management of RA¹³:

- Eat a healthy, balanced diet
- Participate in regular physical activity
- Find ways to reduce sources of stress and effectively manage stress
- Rely on sources of social support
- Communicate openly with care providers
- Take an active role in disease management

When patients are actively involved in their own care, educated, and working in



partnership with their providers, they will be better equipped to meet whatever daily or ongoing health challenges they may face. Such informed, proactive patients are more likely to follow a mutually agreed-upon treatment plan, as well as communicate with their providers about any new symptoms or changes in their condition, issues with medication side effects, and other ongoing concerns that arise.

Lean on me

Because RA is a chronic, therapeutically challenging condition to treat, it is not surprising that RA patients at times look for support and information beyond the rheumatology office. With the plethora of sources available online, patients can find it difficult to sort through all the available, often voluminous health information about supplemental care and resources. How can they do so responsibly?

Instead of relying on unfiltered Internet-sourced information, patients interested in adjunctive care options are better served seeking the guidance of educated providers. Of course, referrals for such

adjunctive treatments as physical therapy or nutrition counseling can come from the patient's rheumatologist or primary care provider. In addition, some health care providers may specialize in integrated or complementary care options. In 17 states and the District of Columbia, for example, naturopathic physicians are licensed providers skilled in navigating the world of complementary or alternative care options.¹⁴

Nevertheless, whether RA patients find additional benefit from dietary programs, supplements, massage, or types of therapeutic bodywork, experts caution that such resources should not serve as substitutes for care by a rheumatology specialist.

"As an adjunctive care provider, we certainly encourage our patients to work with their rheumatologist and stay on the medications they've prescribed," says Leslie Fuller, ND, an associate dean of the National College of Natural Medicine (NCCM) in Portland, Oregon. "That's first and foremost. That treatment approach is going to be the best thing to help delay the onset or progression of the disease and delay debility with the patient."

When patients are interested in adjunctive alternative or complementary care resources, there is much that can help, says Dr. Fuller, a supervisor at NCCM's Portland teaching clinic, which—as a tier 3 patient-centered primary care home—has the highest level of recognition possible in Oregon.

"For our RA patients, nutrition is certainly one mainstay," says Dr. Fuller. "This might involve ... removing certain grains from the diet, for example, to address some of the gluten overloading, getting lots of fruits and vegetables, all of the nutritive flavonoids and minerals, and eating really

high-density foods rather than processed foods or high-sugar foods."

The Mediterranean diet is one example of a diet often recommended to patients with arthritis, says Dr. Fuller. The diet favors fruits, vegetables, fish, nuts, beans, and whole grains, while discouraging consumption of processed foods or those high in saturated fats. Patients may also benefit from omega-3 fatty acids from fish oil. Fish oil includes docosahexaenoic acid (DHA) and eicosapentaenoic acid (EPA), which reportedly have anti-inflammatory properties.¹⁵

"Fish oil is very well researched and works well with the medications, whether it's a biologic or a corticosteroid medication that the patient might be on," says Dr. Fuller. "All the outcome studies have been positive." Another supplement with potential anti-inflammatory properties is curcumin, says Dr. Fuller, which is found in the turmeric plant used in curry foods and available in capsule form. Vitamin D supplementation may also be recommended to offset potential bone loss associated with some medications.

Whenever possible, RA patients are also encouraged to engage in regular and appropriate exercise. "The key with movement is striking a balance, not exercising too much but not being sedentary, either," says Dr. Fuller. "It's about meeting the patient where they're at and facilitating healthy movement."

Accordingly, exercise recommendations include low-impact walking, yoga, or tai chi, which may benefit muscle strength, cardiovascular and bone health, and stress reduction in RA patients, according to some reports.¹⁶ Some patients may be referred to a physical therapist for advice and treatment.

Up in arms

For RA patients, being engaged with the larger patient community can help reduce stress or the feelings of isolation often associated with chronic medical conditions. Such engagement can empower and educate patients as they share ideas and

experiences from their varied and respective health journeys.

“There’s a lot of useful information out there for patients, but it can be hard to manage that information in relatable, digestible, and applicable ways,” says Seth Ginsberg, cofounder and president of CreakyJoints, an online arthritis patient advocacy group affiliated with the non-profit Global Healthy Living Foundation in New York City. “As patient advocates, we think it’s very important for patients to have access to relevant information about arthritis conditions, including RA and how to manage it.”

CreakyJoints serves more than 100,000 patients nationally, working to facilitate patient access to responsible health information. Many physician providers recognize this service as a valuable adjunct to care. “I do think it’s quite helpful for patients to talk to each other and figure out what works for them,” remarks Dr. Krant, who serves as the group’s medical director. “There is optimism to be derived from the experience of others.”

Accordingly, as a physician, Dr. Krant recognizes that patients often seek support in ways that go beyond their medications or necessary tests. He sees value in encouraging this larger patient conversation, which ideally also translates into a more productive, engaged relationship with the rheumatology care team.

“In some cases, for example, patients like to use and recommend ancillary kinds of mind-body therapeutics, such as acupuncture, acupressure, hydrotherapy, and other therapies,” he says. “These are all legitimate and valid if they work, not as substitutes for allopathic care, but as ways of augmenting the clinical benefit. If patients feel that other modalities are helping them, I’m all for it.”

Indeed, an empowered, educated patient community will generally reinforce the message of staying true to recommended treatment plans, says Dr. Krant. “It’s only that tight working relationship between the physician, community, and patient that can ensure ongoing compliance with treatment,” he reports.

Move to improve

As a rheumatology patient for 10 years, Nancy C. Guarino, CMA (AAMA), an employee of the Bay Area Heart Center in St. Petersburg, Florida, is uniquely aware of how valuable patient-provider relationships are for those dealing with chronic health conditions.

This may be particularly true for a condition such as RA, she says, which requires careful, ongoing management, including medication monitoring.

“Rheumatoid arthritis is not curable, and each case is so individual it can take time to develop a treatment plan that manages the progression of a patient’s disease,” says Guarino. “Plus, the treatment can change as the patient’s needs change. I do believe patients need to know and feel comfortable that the provider is doing all they can to keep joint damage down to a minimum and their pain levels as low as possible.” Guarino reports her rheumatologist always encourages her to let the office know right away about any adverse changes in her pain levels. “It’s comforting for me to know the staff is always there for me and will respond to my needs,” she says.

While regular clinic visits are required to monitor the patient’s condition and medications, they also offer opportunities to reinforce healthy lifestyle choices, says Guarino. She notes how her rheumatologist likes to use office visits to encourage her in various ways, such as regular reminders to keep exercising and moving.

“My rheumatologist always says, ‘Motion is lotion,’ meaning the more I keep the joints moving, the less pain and stiffness I will have in the long run,” she remarks. It’s advice she keeps in mind when having a bad day. “My worst pain days are the ones where my activity is limited. I was told on those days that just getting up and moving around during commercial breaks while watching TV, or opening and closing my hands periodically, will help.”

For Guarino, such bite-size suggestions are a reminder that it is not necessary to join an exercise class to get benefits from movement. “Sometimes it’s the little

things that patients can do for themselves throughout the day that make all the difference in how good they feel,” she says. “I think reinforcing these points at every office visit is a must.” She adds that her rheumatology office also provides patients with easy-to-read pamphlets on diet and basic exercise recommendations.

Speaking from experience, Guarino agrees that when patients are reminded of their vital role in their own care, they tend to be more compliant with the overall treatment plan. “This is because medication compliance, including getting surveillance labs drawn per the doctor’s guidelines and getting regular exercise, are ultimately the patient’s responsibility. Diet also plays a huge role in managing RA. As a patient, I’ve learned that eating foods that are natural anti-inflammatories can lessen the need for prescriptions.”

Bend, don’t break

As the new 2015 ACR treatment guideline makes clear, RA requires specialized and closely managed long-term medical care. Fortunately, early intervention and treatment are now making disease remission an increasingly achievable goal.¹¹

“Rheumatoid arthritis has a wide impact on patients’ body systems, in addition to the arthritis that they feel and suffer through,” concludes Dr. Singh. “Therefore, optimum control is the key to success, and that seems to be possible with the treatment options we have currently. The ideal goal is to achieve a close-to-normal quality of life, an optimization of function, and minimization of pain for patients.”

Indeed, as Dr. Singh observes, the rheumatology profession continues to report advances in improving medical management of this challenging disease. Many effective methods are now available for achieving optimum control of RA, reducing or eliminating the pain and inflammation associated with the condition. For patients, an RA diagnosis is no longer necessarily a predictor of impending disability, nor a condition for which hope is in short supply. ♦

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