Our goal in providing the Division of Rheumatology newsletter is to provide information on a variety of rheumatic conditions, the treatment of those conditions, and proactive steps that patients can take to make living with a rheumatic condition a bit easier. In this issue of the newsletter, we review the group of chronic inflammatory conditions known as spondyloarthropathies. Also included in the newsletter is a “news you can use” section, and a profile of Dr. Marilyn Solsky, an attending staff member and private practice physician in Los Angeles.

**What are the Spondyloarthropathies?**

The spondyloarthropathies (SpA) are a set of chronic inflammatory conditions that share genetic predisposing factors and clinical features. Clinically, SpA are characterized by inflammatory back pain and enthesitis, inflammation at sites where tendons, ligaments, or joints attach to the bone. The HLA-B27 gene is present in many of the SpA. While inflammatory back pain is the primary clinical feature, inflammation may also occur in the eye, bowel, genital tract, or skin. Scientists do not yet know what causes any of the spondyloarthropathies, although genetics, environment and infection are likely sources. There are no routine laboratory tests to definitively ascertain the presence of SpA. As a result, diagnosis requires the skilled clinical judgment of a rheumatologist due to the shared characteristics of these conditions as well as their subtle, nuanced differences. In general, treatment options include non-steroidal anti-inflammatory drugs, sulfasalazine, methotrexate, and tumor necrosis factor-α. The SpA include:

- Ankylosing spondylitis
- Psoriatic arthritis
- Reactive arthritis
- Enteropathic arthritis
- Undifferentiated spondyloarthropathy

**Ankylosing Spondylitis**

Ankylosing spondylitis (AS) is the most common of the spondyloarthropathies. It is a chronic systemic inflammatory disease that primarily attacks the axial skeleton and adjacent structures. The axial skeleton consists of 80 bones in the head and trunk of the body, and is divided into five parts: skull, ossicles of the inner ear, hyoid bone of the throat, rib cage, and the vertebral column.

AS usually occurs in young people between the ages of 16 and 35, with symptoms occurring rarely before the teen years. It is unusual for AS to develop after a person is 40 years old. The HLA-B27 gene is present in approximately 90% of individuals with AS. In contrast, only about 8% of the population without AS has the HLA-B27 gene.

The onset of AS generally begins with pain and stiffness in the buttocks and low back. The pain is worse in the morning, improves with activity, and returns again at night.

**Psoriatic Arthritis**

Psoriatic arthritis (PsA) is an inflammatory arthritis that primarily occurs in individuals with psoriasis. PsA may develop prior to or after the onset of psoriasis. About 35% of patients with psoriasis will develop PsA after the onset of psoriasis, while 7% to 30% of patients may develop PsA prior to the onset of psoriasis. Disease onset is usually between 30 and 50 years of age, with men and women equally affected. Forty percent of patients with PsA report a family history of psoriasis or PsA.

Characteristics of PsA include: joint pain and inflammation; dactylitis, a condition in which fingers and toes are very swollen and look like sausages;
enthesitis; tensosynovitis, an inflammation of the fluid-filled sheath surrounding a tendon; and sacroiliitis/spondylitis. Fingers and toes are particularly vulnerable.

**Reactive Arthritis**

Reactive arthritis (ReA) occurs in reaction to a triggering event, usually a bacterial infection in either the gastrointestinal or urinary tract. There is some speculation that ReA may also occur coincident with the human immunodeficiency virus (HIV). Patients with ReA typically experience pain and swelling in the large joints of the lower body, such as the feet, knees, ankles, and hips. While the pain and inflammation of ReA generally appears in the lower body, it is not uncommon for patients with ReA to experience pain and swelling in the upper body as well. About 30% of patients will have acute low back pain that is worse at night and radiates to the buttocks, similar to the acute low back pain experienced by patients with AS. Other, less common symptoms include conjunctivitis, a swelling or infection of the lining of the eyelid, acute anterior uveitis, and various skin manifestations.

ReA generally occurs in adults between the ages of 30 and 40, typically 1 to 4 weeks following the activating infection. Three of the most common bacteria associated with ReA are *Chlamydia trachomatis*, a type of genital infection, *Salmonella*, a type of food poisoning, and *Yersinia*, a gram-negative bacteria. Men and women are at equal risk for ReA when the source of infection is gastrointestinal, but men are at greater risk when the source of infection is genitourinary.

The average duration of acute ReA varies from 3 to 5 months. Depending on the source of the initial infection, 4% to 19% of patients will experience an acute episode that lasts longer than one year. There is a genetic component to ReA, with HLA-B27 positive patients being susceptible to having a more severe disease course. Patients with ReA may recover, continue to experience occasional or chronic joint pain, develop chronic arthritis, or progress to AS.

**Enteropathic Arthritis**

Enteropathy refers to any disorder of the intestine. Enteropathic arthritis is so named because it is an arthritis associated with Crohn’s disease (CD) and ulcerative colitis (UC), both inflammatory bowel diseases (IBD). Up to 20% of patients with CD or UC are afflicted with enteropathic arthritis. In general, but not always, enteropathic arthritis is more active when patients experience an active flare of CD or UC. However, it is possible for enteropathic arthritis to occur prior to, or years following, a diagnosis of inflammatory bowel disease. IBD most commonly begins between the ages of 15 and 35, with men and women being equally susceptible.

Symptoms of enteropathic arthritis include enthesitis, and pain and swelling in the peripheral joints. Most commonly, the arthritis occurs in the lower limbs. About 17% of patients will experience spinal inflammation. Symptoms and signs that usually occur with CD include abdominal pain, weight loss, low-grade fever, and diarrhea. Diarrhea and blood loss from the intestine are typical signs and symptoms of UC.

**Undifferentiated SpA**

The term undifferentiated spondyloarthritis (uSpA) was first used in 1980. It refers to a wide variety of SpA with a strong genetic component that do not meet any of the classification criteria for the SpAs described above. Undifferentiated SpA is one of the most difficult diseases to diagnose, even for experienced rheumatologists, and patients may experience long delays until a correct diagnosis is made. Some patients diagnosed with uSpA may go on to develop one of the definitive SpAs. Even after diagnosis, patients with uSpA face continued challenges due to the variable nature of the disease course, the severity of the disease itself and, not uncommonly, treatment resistance.

Men are more likely than women to be diagnosed with uSpA. Fifty percent of the time, onset of
On May 9, 2012, the Arthritis Advisory Committee to the Food and Drug Administration voted to recommend approval of Pfizer’s investigational agent tofacitinib for the treatment of adult patients with moderately to severely active rheumatoid arthritis (RA) who have had an inadequate response to one or more disease-modifying anti-rheumatic drugs (DMARDs). If the FDA approves tofacitinib, it will be the first new DMARD for RA in more than 10 years. Tofacitinib is one of a new class of medicines known as Janus kinase (JAK) inhibitors.

**Drug News**

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**Profile – Dr. Marilyn Solsky**

I never thought I would live in Los Angeles. I grew up in the Midwest and Los Angeles was just never on my radar until I came out here to do research in osteoarthritis about 22 years ago. I am from Kansas City and did my undergraduate and medical school training at the University of Kansas. During medical school, I thought I would go into infectious diseases or endocrinology. The only woman faculty member at the time was Barbara Lukert, a pioneer in Vitamin D metabolism and osteoporosis. I did my residency at Henry Ford Hospital in Detroit. At the time, I did not realize that faculty members there had made major contributions to the field of osteoporosis; I did know that my first medical rotation there was with the rheumatology service and it was at that point I knew I wanted to be a rheumatologist.

I was fortunate to obtain grants from both Pfizer and the National Institute on Aging, looking at whether or not osteoarthritis was an inevitability of aging. To continue my research, I moved to Los Angeles for a job at USC. I was not in Kansas anymore! I made one more move with my grant from USC to Cedars because I was more interested in studying human cartilage cells than rabbit cartilage cells, and eventually became an attending at Cedars-Sinai and ultimately setting up my own private practice in rheumatology. However, being involved in research gave me a deeper understanding of the complexities of osteoarthritis and I am so delighted that so much attention is now being paid to our patients.

From Detroit I moved to Ann Arbor to do my fellowship in rheumatology. The University of Michigan has a rich tradition in the field of rheumatology, and I was able to work with some of the foremost thought leaders in the field at that time. I participated in several ongoing clinical research trials, determining the effects of two different medications in the management of rheumatoid arthritis. There were multiple research opportunities at the University of Michigan and I chose to pursue a career in academic rheumatology. From Ann Arbor I went to the University of Iowa where I was a junior faculty member in a newly created division of rheumatology. I participated in some ongoing clinical research trials, but my main focus was on the teaching of medical students, residents and fellows. Having seen how the complaints of patients with generative disease were often ignored, I decided that I wanted to combine my interest in osteoarthritis with rheumatology and went to the University of Michigan to do a second fellowship in geriatric medicine.

I was attracted to the diagnostic skills my early mentors demonstrated, and to the compassion they demonstrated in caring for patients with rheumatic diseases in the pre-TNF alpha era. One of the great lessons I learned during that time was to always give a patient hope; I try to emulate those skills and that compassion today.

uSpA occurs during childhood; the average age of onset is between 16 and 23 years of age. The signs and symptoms of uSpA may include any of the signs and symptoms of SpA, such as dactylitis, enthesisitis, and acute anterior uveitis, as well as sacroiliitis and peripheral arthritis. The prevalence of these symptoms varies. For example, at the low end, 4% of patients with uSpA also have IBD. At the high end, 60% to 100% of patients have peripheral arthritis.
devoted to this often neglected area of rheumatology.

From my early days in medical school I continue to be passionate about Vitamin D metabolism and osteoporosis and I still am working to help patients with osteoarthritis. The field of rheumatology is so exciting and I am happy to share advances in the field with patients who have rheumatoid arthritis, fibromyalgia, gout, systemic lupus erythematosus, vasculitis, and myositis. I have never regretted the choice I made to do subspeciality training in rheumatology.

I have been privileged to have served as clinical Chief of Rheumatology for an unprecedented 6 years. I continue to teach fellows and residents as a volunteer clinical attending in Rheumatology. I am an associate clinical professor of medicine at UCLA, and am a member of the Bone Health Center of Excellence at Cedars-Sinai.

I am committed to exercise and diet in my own life and try to encourage my patients to find ways to supplement the medications I prescribe by looking for ways they can strengthen their joints, improve their cardiovascular endurance and develop good posture through diet and exercise. I just completed 200 hours in yoga teacher training and hope to utilize the skills I developed in those classes to help my patients and perhaps more broadly look at the effects of yoga on different rheumatic conditions.

News You Can Use

Treatment Guidelines.
The American College of Rheumatology recently issued updated guidelines for osteoarthritis (OA), rheumatoid arthritis (RA), and lupus nephritis. If you are a patient living with OA, RA, or lupus, you may want to discuss the recommendations in these guidelines with your rheumatologist. The new guidelines are:

- American College of Rheumatology 2012 recommendations for the use of nonpharmacologic and pharmacologic therapies in osteoarthritis of the hand, hip, and knee.
- American College of Rheumatology guidelines for screening, treatment, and management of lupus nephritis.

Research Participation

Information on Division of Rheumatology clinical trials currently recruiting participants may be found at www.Cedars-Sinai.edu/clinicaltrials. For patients interested in Rheumatology research, please call: 888-582-2226 (toll free).

Support

Generous community support helps Cedars-Sinai expand the horizons of medical knowledge through lifesaving research, educate and train physicians and other healthcare professionals, and improve the health of our community now and in the years ahead.

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