RHEUMATOID ARTHRITIS TODAY

Prognosis and Treatment in Rheumatoid Arthritis

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Rheumatoid Arthritis Outlook

Current clinical opinions regarding the development and treatment of RA include improved pregnancy outcomes and natural therapies with fewer side effects.

Rheumatoid arthritis (RA) is the most common autoimmune systemic connective tissue disorder. It's characterized by a symmetrical form of polyarthritis, which means that it affects multiple joints on both sides of the body, for instance the joints of both hands or both feet. RA causes synovitis, a condition of chronic inflammation in the synovial membrane (interior of the joint capsule), with inflammation in the joint space, which may lead to destruction of cartilage.

Eventually, without treatment intervention, the joint space in rheumatoid arthritis may become obliterated and the bone ends united (causing a condition of ankylosis). In advanced arthritis, virtually all of the affected articular cartilage is replaced by a rheumatoid inflammatory membrane. One remnant of eroded cartilage may remain attached to bone with fragments of cartilage embedded in the inflammatory membrane.

Who is Affected?

About 1 percent of the population is reported to have rheumatoid arthritis. Women are affected about three times as often as men, with symptoms most often emerging during the fourth to fifth decade of life.

Signs and Symptoms in Rheumatoid Arthritis

Rheumatoid arthritis is characterized by an autoimmune-induced inflammatory reaction to the peripheral synovial joints of the fingers, wrists, elbows, shoulders, neck, jaws, knees, ankles, hips, and feet. Signs and symptoms include subcutaneous (beneath the skin) rheumatoid nodules, morning stiffness, joint pain and swelling, along with constitutional symptoms of malaise and fever.

Systemic Effects

Systemic effects of RA include cardiac (heart) involvement including pericarditis (inflammation of the sac surrounding the heart), myocarditis (inflammation of the heart muscle), and rheumatic nodules in myocardial tissue; cutaneous vasculitis, neurological disease (mononeuritis multiplex, a condition of neuropathy affecting multiple systems such as the nerves of the hands and feet), and diffuse lung problems such as pleural
effusion and pulmonary vasculitis. About 30 percent of patients develop associated heart problems.

**Otolaryngeal Problems**

Ear, nose, and throat problems can also occur. Involved joint spaces include the joints of the adenoids, ears, temporomandibular joint space, and the cervical spine joint. Rheumatoid involvement of the larynx is the most common occurrence and may occur as arthritis of the cricoarytenoid joint, inflammation of the larynx, atrophy of the laryngeal nerves, and rheumatic nodules of the vocal cords.

Temporomandibular (TMJ) joint dysfunction may be particularly severe and cause an open bite deformity as well as hearing loss either conducive or secondary to joint inflammation of the ossicular joint or as a sensorineural complication of a related autoimmune inner ear disturbance.

**Diagnosis of RA**

Rheumatoid arthritis is diagnosed by a combination of blood and imaging tests that evaluate joint inflammation. Rheumatoid factor (RF) autoantibodies that target and destroy immunoglobulin G are seen in acute RA. Tests for cyclic citrillinated peptide (CCP) antibodies are better diagnostic indicators of RA because they are seen in RA but not in other connective tissue disorders. In the active phase of RA, C-reactive protein (CRP) levels are typically elevated to levels greater than 4 mg/dl. During an acute inflammatory attack of RA, CRP levels rise 100 to 1000 fold. Levels of CRP fall to normal during periods of remission. The erythrocyte sedimentation rate (ESR or sed rate) is moderately elevated in RA. Measurements of these inflammatory markers can be used to evaluate treatment response and diagnose relapses.

Elevated levels of tumor necrosis factor alpha (TNF-α), interleukin 1 (IL-1), and interleukin 6 (IL-6) are found in the blood and joint fluid of patients with rheumatoid arthritis. These cytokines function as pyrogens, contributing to fever and inflammation. Current therapies are designed to inhibit production of these cytokines.

**Treatment of RA**

The prognosis for patients with RA has improved considerably in recent years. Treatment today is designed to relieve symptoms and induce longer periods of remission. A number of different over-the-counter and prescription medications are available to reduce inflammation and pain in patients with rheumatoid arthritis. However, because many of these remedies have undesirable side effects, newer medications that reduce joint inflammation naturally, including the supplement Same have been developed. Herbal remedies that effectively reduce joint inflammation include Boswellia, Ginger, Turmeric, and Devil’s claw.
A diet designed to reduce inflammation is also recommended, and light exercise is recommended to maintain joint mobility.

**RA in Pregnancy**

Relatively large numbers of women with rheumatoid arthritis are reported to have good pregnancy outcomes although carefully monitoring during pregnancy is recommended to minimize adverse consequences. Studies show that among rheumatoid arthritis patients, the rates of hypertensive complications, premature rupture of membranes, and intrauterine growth retardation were slightly but significantly higher than for control patients.

**Resources:**

James Grant, Otolaryngologic Manifestations of Systemic Disease, Grand Rounds, February 1997, UTMB Department of Otolaryngology.


Rheumatic Diseases and Pregnancy—what’s the risk? InFocus, Newsletter of the Autoimmune and Related Disorders Association, June 2006, 9.

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