



Remicade is among the medications used to treat people with autoimmune diseases, in which the immune system attacks healthy cells.

Immune system can backfire

In autoimmune disease, defenses attack in error

By GRITA BOHRGARDIS
For The Sun News

The human body is a work of art. The way it is constructed and the way it works go beyond the imagination of the greatest designers.

But as wonderful as our bodies are, they are not perfect. Some malfunctions cause people to have physical, emotional, psychological or mental problems. Some of these malfunctions can be explained, and others cannot.

One group of these mysterious malfunctions is called autoimmune disorders.

"Autoimmune diseases occur when the immune system starts attacking its own body," said Dr. Douglas Conaway of Carolina Health Specialists in Myrtle Beach. "The immune system starts producing antibodies that target different parts of the body. There are two types of autoimmune disease, the specific that targets only one particular area and broad-based that targets several areas."

Autoimmune disease causes the body's

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immune system to become misdirected and start attacking what it was originally designed to protect. Along with responding to and destroying foreign bacteria and viruses, the immune system starts targeting healthy cells, tissues or organs and produces antibodies to attack them.

According to the American Autoimmune Related Diseases Association, there are more than 100 known autoimmunity-related chronic illnesses, including psoriasis, type 1 diabetes, Hashimoto's thyroiditis, Crohn's disease, cardiomyopathy, rheumatoid arthritis, multiple sclerosis, vasculitis, lupus and ITP.

About 23.5 million Americans suffer from autoimmune diseases, the National Institute of Health estimates, and the inci-

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dence of these diseases is rising. Seventy-five percent of these disorders occur in women, and they are the fourth-largest cause of disability in females in the U.S. They also are a leading cause of death in women ages 65 and younger.

"Autoimmune diseases tend to run in families but generally cause different types of disorders in each individual," Conway said.

A mother may have rheumatoid arthritis, and one daughter may have type 1 diabetes, another daughter may have Crohn's disease. Research sponsored by the AARDA indicates a genetic link increases a person's chances of developing an autoimmune disease. However, genetic predisposition is not the only factor. A number of triggers also play a part, such as bacteria, viruses, toxins, hormones, significant stress and some drugs.

As a rheumatologist, Conway sees many patients who have various conditions that are the result of autoimmune disorders. The most

common is rheumatoid arthritis, a chronic disease affecting the joints and soft tissues around the joints causing pain, stiffness and swelling along with limitation in motion and function.

"There has been a lot of progress in the last few years in treating rheumatoid arthritis," Conway said. "A lot of new medications have been developed for the treatment of this disease."

"Most people think rheumatoid arthritis only affects the joints," he said. "They don't realize that it can affect the lungs, eyes and heart as well. Inflammation can damage blood vessels, and that can lead to cardiovascular disease."

Conway also treats lupus, a chronic inflammatory disease in which antibodies start attacking the body's cells, leading to inflammation, blood vessel abnormalities and tissue damage. It occurs 10 times more often in women than men and is more common in some ethnic groups, particularly blacks and Asians.

Lupus can affect skin, joints, hair and blood cells and can even involve the kidneys

and the brain.

As with other types of autoimmune disorders, a person can have the gene for lupus but never get the disease. It is not known what triggers the antibody to start attacking cells.

For most autoimmune-related diseases there is no cure, but treatments are available to control the problem. Scientists are searching to learn why the body produces an immune response to itself.

Autoimmune disorders are poorly understood and difficult to diagnose. An AARDA survey found that more than 45 percent of patients with autoimmune diseases have been labeled hypochondriacs in the earliest stages of their illnesses.

"In the future we will know more about genetics," Conway said. "We'll be able to take a swab and be able to determine a person's risk for autoimmune diseases and administer drugs to prevent it. We will also develop more biologic agents to treat patients."

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