News
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***Note to the Editor: National Lupus Awareness Week is October 19th through 25th.

* * * * "Lupus" researcher investigating the unpredictable disease in newly established Immunodermatology Center.

DALLAS--Constant pain and the knowledge that she is dying lead Katherine to thoughts of suicide. This is her twelfth year as a victim of systemic lupus erythematosus (SLE), a degenerative and usually fatal disease.

"I walk a thin line between being a complainer and being a martyr," says the career woman and mother of three, "and everybody hates both complainers and martyrs. But I sincerely would give anything for 30 minutes a month without pain."

Afflicting 500,000 Americans, ninety percent of them women, systemic lupus is more common than muscular dystrophy, multiple sclerosis, leukemia and many other better known diseases. Like them, it has no cure. But SLE can be suppressed for extended periods of time through medication.

Called an "autoimmune disease," systemic lupus erythematosus kills when antibodies that ordinarily function to fight off infection and disease begin to attach themselves to normal cells circulating within the body's bloodstream. The antibodies, which resemble floating lobsters with long bodies, extended arms and claw-like appendages that grab onto cells, are attracted to normal cells for unknown reasons. They form a coating on the cells--white blood cells, red blood cells, platelets and others--and at times attach to cellular breakdown products such as DNA. Then these strange new antibody-antigen structures set off explosive chain reactions within the immune system. Inflamation and cell death result. When these tiny bombs bind to the surface of body organs or excite a violent reaction within the fluid components of these organs, then the organs, like innocent by-standers on a battleground, become injured by just being there.

Active phases of the disease come and go.

Katherine's latest flareup has lasted more than a year. Periodically she is hospitalized to receive injections of cortisone in her joints--joints that are swollen and stiff with arthritis-like pain. She has taken up to 22 aspirins a day for the past six years and is beginning to have difficulties with her hearing. Confident that she is helping others as an administrator for a social welfare agency, she works five days a week in spite of unexpected epileptic seizures, severe bladder infections and difficulty in breathing.

Researchers find the disease mysterious and baffling. Known as a multi-system disease, SLE sometimes affects the skin with a characteristic butterfly-shaped rash on the nose and cheeks. It can also affect the lungs, kidneys, central nervous system, heart and other organs, often by causing injury to collagen, the material that gives strength to all tissues. And then organs and vessels become clogged with cells that have been destroyed. Tissue wreckage and damage from antibody-antigen binding is especially hard on the kidneys, which fail to function after prolonged periods of active lupus.

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Dr. James N. Gilliam, recognized authority on lupus and director of the Division of Dermatology at the University of Texas Southwestern Medical School, recently received a grant from the Allergy Institute of the National Institutes of Health to establish an Immunodermatology Center at the medical school. Lupus is one of the key areas of investigation.

Using antibodies found in the skin as indicators, Gilliam has developed classifications of the clinical spectrum of lupus. Subsets range from the mildest forms of lupus with skin involvement only (called "discoid lupus" or DLE) to the most deadly form of systemic lupus. Skin manifestations, he has found, can indicate the extent of systemic involvement in the body. And greater concentrations of antibodies in the skin are found in the more severe forms of lupus, he says.

"Since lupus is a multiple system disease we must be effective in both internal medicine and dermatology," says Gilliam, who is an associate professor of internal medicine at Southwestern. "Treatment of the disease depends entirely on the type of involvement. The disease could be as mild as a skin rash, needing only the use of topical medication, or an aggressive disease needing steroids or immunosuppressants."

Lupus means wolf in Latin. Erythematosus means redness. The disease first acquired its name because skin damage resembled a wolf bite. But the unsightly rash of discoid lupus that can last for months or years does not necessarily indicate the present of the more severe form of lupus with anti-DNA antibodies. In fact, Gilliam points out that the SLE patients with discoid lupus skin scarring, depigmentation and scaling have a milder form of systemic disease. And the prognosis of patients with DLE is excellent, he says.

"Unlike SLE, discoid lupus is almost always a local and self-limiting disease process. It is quite rare to see any of these patients acquire systemic lupus.

"On the other hand, a small percent of patients with SLE have discoid SLE for periods up to 25 years before developing multisystem disease," he says. He notes that one of the principal characteristics of lupus is its unpredicability.

Manifestations of both kinds of lupus vary from one individual to another, making diagnosis difficult. Lupus is a great imitator of diseases, casting symptoms all over the body. At times lupus is mistaken for rheumatoid arthritis. And some patients will have a false-positive blood test for syphilis.

Gilliam says that a combination of three factors may lead to contracting of the disease. The first concerns abnormalities in the control of the immune system. There is an autoimmune tendency that causes deposits of antibodies in the skin--skin that appears to be normal. These antibodies don't produce skin disease, but they are found in patients with more severe lupus, and they seem to be related to antibodies in the blood serum that are attracted to DNA. It's the complex of antibody to DNA that can produce kidney damage, which may be one of the most serious complications of this disease.

The second factor is a genetic tendency, in that lupus seems to run in families in subtle ways. Twin studies have shown that if one twin has lupus the other is likely to have it also.

The third factor is environmental, which would include viral infection, drugs and photosensitivity. After a person has contracted the disease, excessive exposure to sunlight--that is, exposure exceeding five or ten minutes--can cause a flareup of internal symptoms.

For Katherine and other lupus patients, the solution at the present is medication as the symptoms present themselves. For her, there is constant pain in spite of steroid therapy and other medical treatment.

"Each day when I get home all I want to do is tell someone how much I hurt," she says. "But I can't tell my husband--the disease makes him angry and he takes his anger out on me. I can't tell my children--it makes them cry. Everyone tells me what a heavy trip my disease is on them. But I'm the one who hurts. All I ask is that I be allowed to talk about it."

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