News
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December 7, 1987

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****Cyclosporine enters advanced phase of testing in myasthenia gravis patients

DALLAS -- Cyclosporine, the drug used to prevent rejection of transplanted organs, has shown promise as a treatment for myasthenia gravis, a paralyzing neuromuscular disease. Now an advanced phase of clinical drug testing is beginning in myasthenia gravis patients, according to Dr. Richard Tindall, director of the Neuromuscular Treatment Center at The University of Texas Southwestern Medical Center at Dallas.

Drug testing will be performed in six university medical centers around the country, where hundreds of volunteer myasthenia gravis patients will be needed to assess the drug's effectiveness, says Tindall, the trial's principal investigator.

Tindall's research team was the first in the nation to receive FDA approval for treating myasthenia gravis patients with cyclosporine. Funding for the study comes from the Muscular Dystrophy Association and Sandoz Pharmaceuticals, maker of the drug.

Cyclosporine has shown promise in the treatment of myasthenia gravis and other autoimmune diseases, in which a person's body produces a destructive immune response aimed at normal tissue, says Tindall. "It is the first drug specific for the dysfunction underlying autoimmune diseases," he says.

In myasthenia gravis, antibodies are produced that destroy muscle tissue. These antibodies become life-threatening when patients are unable to breathe or to swallow. Cyclosporine interferes with the body's production of antibodies and interrupts the destructive process.

In preliminary studies, cyclosporine was found effective in curing laboratory animals of a disease simulating myasthenia gravis. This research, conducted at The Johns Hopkins School of Medicine, showed the drug is able to suppress antibody production, the primary problem in autoimmune diseases.

Human trials with 59 myasthenia gravis patients, conducted over the past three years at Southwestern by Tindall, established the effectiveness of the drug and a safe, non-toxic dosage. "The next phase of testing is to assess whether this safe dosage is more effective than conventional therapies," says Tindall.

Patients with myasthenia gravis experience muscle weakness and, in severe cases, total paralysis. After a period of years during which tissue damage occurs, the

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disease "burns" itself out. "Our hope is to prevent this damage and permit the body to repair itself," says Tindall.

The disease, usually affecting young women and older men, is fatal in approximately 5 percent of patients. About one third of all myasthenia gravis patients have a severe form of the disease, in which they cannot breathe without a respirator and choke from an inability to swallow. Another third have a moderately serious form of the disease -- serious enough that they are unemployable and their daily activities must markedly be reduced. The last third have symptoms that cause difficulty in daily living but do not disable them.

Further information about participating in the study can be obtained from the study coordinator Julia Rollins, R.N., at 214/688-2524.

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Note: The University of Texas Southwestern Medical Center at Dallas comprises Southwestern Medical School, Southwestern Graduate School of Biomedical Sciences and Southwestern Allied Health Sciences School.