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*****New study underway
testing effectiveness
of cyclosporine in patients
with myasthenia gravis.

DALLAS--Doctors at The University of Texas Health Science Center at Dallas are utilizing a new approach for treating patients with the paralyzing neuromuscular disease, "myasthenia gravis."

A clinical trial is underway using cyclosporine, the anti-rejection drug responsible for the recent upsurge in transplant surgery, on myasthenia gravis patients with early signs of the disease. Dr. Richard S.A. Tindall, UTHSCD neurologist leading the study, says the drug shows great promise on myasthenia gravis and other "autoimmune" diseases, since cyclosporine interferes with the body's production of antibodies. Autoimmune diseases are characterized by destructive antibodies that go awry and, instead of attacking foreign particles in the bloodstream, attack normal body cells.

Cyclosporine has been found effective recently in curing laboratory animals of a disease simulating myasthenia gravis. This study, conducted at The Johns Hopkins Medical Institutions, shows cyclosporine to be more effective than other known medication in treating myasthenia gravis. In addition, the drug seems to correct the primary problem, which is antibody production. "The animal study offers promise that the drug may arrest myasthenia in humans," Tindall says.

Tindall is accepting 40 myasthenia gravis patients over the age of 40 as volunteers. Patients, who will be carefully monitored by Tindall and others on his team, will be given cyclosporine for one year. All treatment and evaluations are free of charge. A low dosage of cyclosporine will be utilized, thereby reducing the likelihood of short-term or long-term side effects.

Cyclosporine is most commonly used after transplant surgery to suppress the immune system and thereby halt rejection of the new organ. However, new applications of the drug are being discovered.

Tindall's research team is first in the nation to receive FDA approval for treating human myasthenia gravis with cyclosporine. Funding for the study comes from Sandoz Ltd. of Switzerland, maker of the drug. Patients are evaluated and monitored in the National Institutes of Health-sponsored General Clinical Research Center at the health science center.

Patients with myasthenia gravis experience muscle weakness, at times leading to paralysis. The disease results from antibody destruction of muscle cells and can become lifethreatening when patients are unable to breathe or to swallow. After a brief period in which damage occurs, the disease runs itself out and the body works to repair itself, Tindall says.

"Myasthenia gravis is a single disorder of the immune system," he explains. "Myasthenia is ideal to treat with cyclosporine to see if the drug works. There is a known antibody involved in this disease and we can measure it. The disease is controllable and the body works to repair itself."

The disease usually affects young women and both men and women in their 50s through 70s. The disease is fatal in two to five percent of patients. About one-third of all myasthenia patients have the most severe form of the disease. These patients can't breathe without a respirator and choke from an inability to swallow. Another third have a moderately serious form of the disease -- that is, serious enough that they are not employable and their daily activities must markedly be reduced. The last third have symptoms that give them difficulty but do not disable them.

Some patients are helped by removal of the thymus gland. But for older patients,

(more)

add one--cyclosporine

thymectomy imposes a significant risk. The older age group can't tolerate the standard immunosuppressant drugs used to treat the disease. And steroids, which are often helpful, "rather predictably produce cataracts, osteoporosis, diabetes, hypertension and emotional problems in this age group," Tindall says.

"For many reasons, there is a need for a safer, more effective immunosuppressant drug for myasthenia."

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

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