

SOUTHWESTERN NEWS

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UT SOUTHWESTERN RESEARCH INDICATES STROKE VICTIMS' THERAPY AIDED BY DRUGS

DALLAS — January 26, 1996 — Encouraged by promising early results, UT Southwestern Medical Center at Dallas researchers are continuing a study that pairs a form of amphetamine with physical therapy in an attempt to accelerate the rate of recovery for certain stroke patients.

"The most important finding of this research so far is that patients seem to recover their motor functions significantly better after stroke when their normal physical therapy is combined with the administration of amphetamine," said Dr. D. Hal Unwin, assistant professor of neurology and one of the scientists involved in the study. "We've also been able to determine that it appears to be extremely safe to use these drugs on patients."

Unwin; Dr. Delaina Walker-Batson, a clinical associate professor of neurology and radiology at UT Southwestern and professor of communication sciences and disorders at Texas Woman's University; Dr. Ralph G. Greenlee Jr., the Ed and Sue Rose Professor in Neurology and director of the Pauline Gill Sullivan Diagnostic and Treatment Center for Neurological Diseases at Zale Lipshy University Hospital; and Patricia Smith, assistant professor of physical therapy, reported on their research in a recent issue of the American Heart Association's journal *Stroke*.

The report covered six women and four men from 48 to 72 years old, each partially paralyzed by a stroke caused by a blood clot. The ten patients were assigned randomly to receive either dextroamphetamine (AMPH) or a placebo. Drug treatment paired with physical therapy began between 16 and 30 days after the stroke and continued every fourth day for 10 sessions. Researchers tested the patients' motor skills at the outset, and tests continued for 12 months. Patients taking AMPH had significantly improved test scores.

Doctors were concerned that blood pressure might increase as a result of the drug, but

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they noticed "no real change," Unwin said. Smith said physical therapists found that they can push patients harder when they are receiving the drug. She said therapists report continued improvement up to a year after the stroke.

Unwin said these findings suggest that drugs may enable patients' nervous systems to find alternative pathways for recovery of motor skills. The stimulant appears to affect neurotransmitters in the brain, improving signaling to other body parts. Although the sample involved in the study so far has been small, the patients involved had severe disabilities, making any improvement in their recovery meaningful, he said.

Unwin said researchers will continue to be extremely restrictive in their choice of patients for the trial. Of 80 patients screened in one three-month period, only two qualified.

The trial is a cooperative effort by local hospitals, including Zale Lipshy University Hospital, Parkland Memorial Hospital, Baylor University Medical Center, Harris Methodist Medical Center and Presbyterian Hospital of Dallas. When a possible patient is brought to cooperating hospitals, UT Southwestern neurologists are notified to consider whether administration of the drugs would be appropriate. If the patient qualifies, Unwin or Greenlee begins administration of the amphetamine.

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