Deep Brain Stimulation shows promise for patients with Alzheimer's

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In a world first, Dr. Andres M. Lozano and his team at Toronto Western Hospital has shown using Deep Brain Stimulation (DBS) on patients with early signs of Alzheimer's disease is safe and may help improve memory.

The phase one safety trial of six Ontario patients took place from 2005 to 2008. All patients left hospital within 2 to 3 days of surgery, and continue to participate in regular follow-up cognitive assessments.

Throughout these assessments, Dr. Lozano says half the patients continue to perform better than predicted - that is - their memory capacity has improved, or deteriorated less than expected.

"While the study was not looking for efficacy, the results suggest that of the six patients, three may have done better than if the Alzheimer's disease was allowed to run its course," commented Lozano. "We showed that not only is this a safe procedure, but that the evidence is there to warrant a bigger trial. Any amount of time that extends quality of life and quality years to someone with Alzheimer's may be a benefit."

Dr. Lozano first discovered the potential for DBS to treat Alzheimer's disease while treating a patient for obesity using DBS back in 2003. While signaling areas of the brain, Dr. Lozano and his team triggered memories in the patient. In follow-up testing the patient's memory improved and Dr. Lozano set in motion the first ever DBS trial of patients with early signs of Alzheimer's disease.

"We've demonstrated this is safe, and that the evidence warrants more study. We're now planning a phase two, multi-centred trial - we're just waiting on the funding," says Dr. Lozano.

More information: Results of Dr. Lozano's trial are published in today's issue of Annals of Neurology.

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