

New treatment welcome news for Parkinson's and stroke patients

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(Medical Xpress) -- New research developed by The University of Queensland is set to change the future treatment of speech problems associated with stroke and Parkinson's disease.

The new treatment is promising news for people with speech and language disorders that result from diseases within the <u>nervous system</u>.

Professor Bruce Murdoch of the Centre for Neurogenic Communication Disorders Research within UQ's School of Health and Rehabilitation Sciences said preliminary trials of the new treatment were positive in the effective treatment of these speech and language disorders.

The research has found a <u>new technology</u>, transcranial <u>magnetic</u> <u>stimulation</u> (TMS), can be used to stimulate the brain with a series of <u>magnetic pulses</u> delivered by a stimulating coil held over selected areas of the head.

Professor Murdoch said TMS featured a coil, shaped like a figure eight, that was held over the patient's head to "switch on part of the brain" in Parkinson's sufferers and "switch off" a different part in stroke victims.

"The non-invasive technology is proving very effective in treating longterm sufferers of stroke and Parkinson's disease, where traditional therapy approaches have proven ineffective," he said.

"The brain can heal itself much better than we thought it could.



"Based on these findings, TMS would appear to have the potential to revolutionise the treatment of brain-based speech and language disorders with improved outcomes and quality of life for sufferers of neurological disease."

Professor Murdoch said the trials have recorded positive results within a week to two months after treatment, with patients still recording improvement 12 months' post-stimulation.

"When present, these disorders have a serious impact on quality of life, often leading to an inability to communicate with family and friends, social isolation, loss of vocational standing and financial hardship," he said.

"Unfortunately speech and language disorders associated with conditions such as stroke and Parkinson's disease have proven difficult to treat, and consequently many sufferers of these conditions experience long-term impairment of their ability to speak and communicate with others."

Professor Murdoch, in collaboration with colleagues from the University of Hong Kong, is extending the research to include investigation of the use of TMS in the treatment of swallowing disorders post-stroke, as well as its potential application in the treatment of brain-based voice problems.

Provided by University of Queensland

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