

Why do people with Parkinson's have trouble swallowing?



Project information

Lead researcher	Dr Shaheen Hamdy
Location	University of Manchester
Cost	£15,576 over 24 months
Start date	May 2010
Type of project	Innovation grant
Project code	K-0910

Project background

As Parkinson's develops, many people find that everyday activities like swallowing become more difficult due to changes in how throat muscles work. Swallowing occurs on average about 1000 times a day. But people with Parkinson's, even in the early stages of the condition, may experience problems in swallowing.

- **Difficulties in swallowing can lead to serious complications**, from problems with breathing, to not getting enough nutrition and potentially developing other conditions such as pneumonia.
- **Little research has been carried out into why swallowing is affected in Parkinson's**, but we know that drugs like levodopa, which is used to treat the symptoms of the condition, don't seem to help.

What the researchers are doing

Dr Hamdy has been researching how a new way of stimulating the brain, called ‘transcranial magnetic stimulation’ (TMS), affects swallowing. This involves generating a magnetic field around a particular part of the brain that helps control movement. It may then be possible to make specific throat muscles respond to the electrical current.

Forty people with Parkinson’s will take part in the research over two days both before and after they have taken their medication. The participants will fill in questionnaires to identify their swallowing difficulties in detail. Then following TMS treatment, the researchers will measure how active the muscles that control swallowing are by recording how well the muscles in their throat respond to a series of magnetic pulses that should stimulate them to work. The study will also look at how areas of the brain that control swallowing are affected by Parkinson’s drugs by measuring the electrical signals sent from one nerve cell to another.

How the research will help people with Parkinson’s

We hope that the findings from this research will help increase awareness and understanding of the swallowing problems that people with Parkinson’s experience. This may ultimately lead to better treatment options for this distressing problem.

While this is only a small study, it will give us an indication as to whether TMS is a treatment worth pursuing. We are passionate about funding cutting edge research to find a cure and better treatments for Parkinson’s, which is what our innovation grant programme is all about.

For more information, please talk to the Research Team

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