Abstract:

BACKGROUND: There is some evidence for a therapeutic effect of repetitive transcranial magnetic stimulation (rTMS) on dysphagia in hemispheric stroke. AIM: To compare the effect of active or sham rTMS applied to the motor area of both hemispheres in patients with acute lateral medullary infarction (LMI) or other brainstem infarctions. MATERIAL AND METHOD: The study included 22 patients with acute ischaemic stroke who had severe bulbar manifestation. 11 patients had LMI, and 11 had another brainstem infarction. They were randomly allocated to receive active (n=11) or sham (n=11) rTMS of the oesophageal motor cortex. Each patient received 300 rTMS pulses at 3 Hz and an intensity of 130% resting motor threshold to each hemisphere for five consecutive days. Clinical ratings of dysphagia and motor disability were assessed before and immediately after the last session, and then again after 1 and 2 months. RESULTS: There were no significant differences in baseline clinical assessment of swallowing between active and sham groups. Active rTMS improved dysphagia compared with sham rTMS in both groups of patients, (p=0.001 for both); the LMI group also improved the scores in the Barthel Index. All improvements were maintained over 2 months of follow-up (p=0.001). CONCLUSION: These findings suggest that rTMS could be a useful adjuvant strategy in neurorehabilitation of dysphagia due to LMI or other brainstem infarction, although further assessment is necessary in multicentre clinical trials.

Published In:

J Neurol Neurosurg Psychiatry. 2010 May;81(5):495-9