PW01-172 - TREATMENT EFFECTS OF REPETITIVE TRANSCRANIAL MAGNETIC STIMULATION (RTMS) ON PATIENTS WITH CHRONIC TINNITUS AURIUM

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Objectives: In the Federal Republic of Germany about 3 million people suffer from tinnitus/are hit by tinnitus, numerous of them depend on intensive medical care. The repetitive transcranial magnetic stimulation is considered to be an innovative and promising therapy in tinnitus treatment. Low frequency stimulation is meant to reduce the abnormal neural activity in the auditory cortex. This study focuses on the efficacy of rTMS with tinnitus patients in the course of a multi disciplinary / an interdisciplinary therapy concept.

Methods: From November 2008 to June 2009 29 outpatients with chronic tinnitus were treated by low frequency rTMS (1 Hz frequency, 2000 impulses, intensity 110%) for 10 proceedings, stimulating the sinistral auditory cortex with a figure-of-eight-coil. Prior to and afterwards the proceedings questionnaires and assessments of a psychologist took place, afterwards statistical analyses were conducted, the data was explored and systematically discussed.

Results: The severity index of the tinnitus as well as the depression symptoms of the subjects improved significantly. The average reduction rate of the tinnitus score is set at 7 points. With a response criterion at the minimum of 5 points, 57% were declared as responder, 29% as non-responder and 4 patients (14%) described an increase of the tinnitus loudness/annoyance.

Conclusions: The results show that the rTMS works as a helpful treatment tool with tinnitus patients and should be considered as an option in the routine tinnitus treatment.

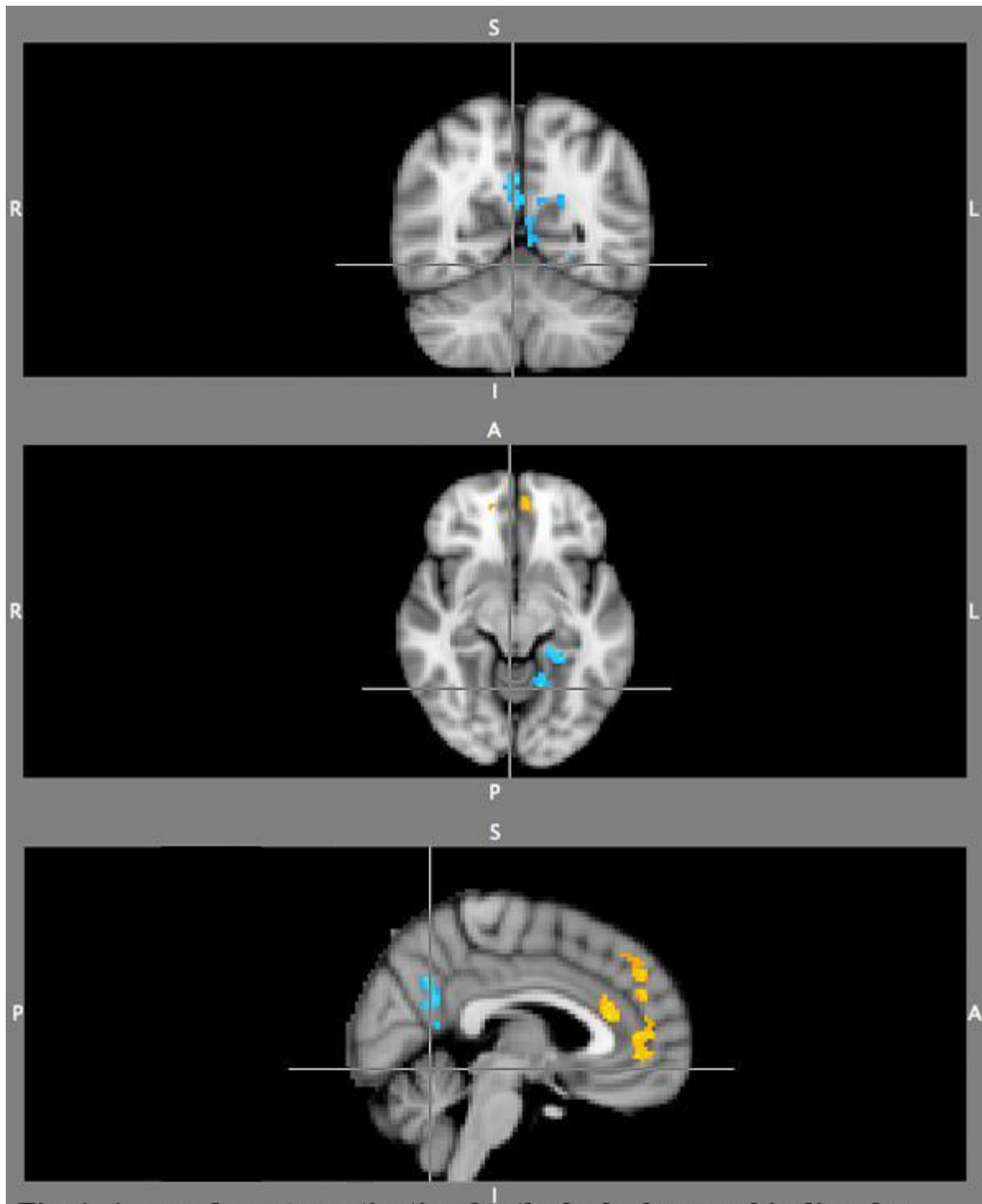**Keywords:** rTMS, tinnitus, low frequency stimulation

Fig. 1. Areas of greater activation for the body dysmorphic disorder group relative to healthy controls for high detail images (yellow) and lesser relative activation for low detail images (blue).

[Figure 1]