

49th International Danube Neurology Symposium
21-22. April, 2017, Budapest, Hungary
ABSTRACTS of the LECTURES

Mean SAI was significantly reduced in our OSAS patients when compared with controls. The neuropsychological evaluation showed impairments in most cognitive areas in the OSAS patients. SAI values were strongly correlated with the neuropsychological test scores. These findings suggest that the cognitive deficits in OSAS may be, at least in part, secondary to alterations in cholinergic neurotransmission, presumably caused by nocturnal hypoxemia. TMS studies may shed light on the pathophysiological mechanisms of the cognitive disturbances in OSAS patients.

E 30 Neurostimulation in epilepsy

Prof. Dr. Ivan Rektor

The Neurology Department of the University Hospital in Brno

We have not received the abstract until the deadline.

E 31 The role of functional MRI in the diagnosis and prognosis of patients with severe brain damage

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Background and aims

Exact diagnosis of patients following severe brain damage is essential for clinical and rehabilitative care as well as decision-making and a rate of 43% of misdiagnosis is evident. Neurobehavioral tests relying on the patients' intellectual and motor ability to communicate are the most widely used diagnostic tools, since their advantage over clinical assessment has been validated. However, with the emergence of modern neuroimaging methods, especially fMRI, objective physiological markers for assessing the state of consciousness are available but the benefits still have to be determined.

Methods

21 patients clinically and neurobehaviorally diagnosed as "Apallic-Syndrome (AS)" and 6 patients as "Minimally Conscious State (MCS)" after severe brain damage of different etiologies were examined with different fMRI paradigms testing fundamental functional networks of the brain (proprioceptive, pain, motor, emotion, self-awareness, language, resting state). The findings were compared with the clinical and neurobehavioral diagnosis and it was analyzed whether additional information from fMRI confirmed or questioned the clinical and neurobehavioral diagnosis.

Results

16 of the 21 AS- and 5 of the 6 MCS-patients show specific brain activation in a special diagnostic battery of fMRI-paradigms suggesting that the AS-patients are in MCS or even better.

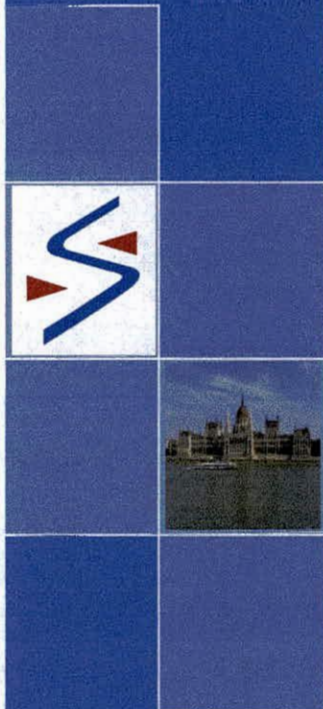
Conclusion

Misdiagnosis in patients following severe brain damage is still a big problem even with well-established diagnostic assessment scales. As long as internationally accepted guidelines for assessing these patients do not exist, we propose a special diagnostic battery of fMRI-paradigms to minimize diagnostic errors in these patients and to find systematically perceptive channels to approach the patients in neurorehabilitation programs.

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Neurology Symposium
BOOK OF ABSTRACTs**

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