

**INTRAOPERATIVE NEUROPHYSIOLOGIC MONITORIZATION – INITIAL PERSONAL EXPERIENCE WITH 35 PATIENTS**

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The intraoperative monitoring is the most important and indispensable piece of work first of all because of its effectiveness in the prevention of the neurologic deficits. Evoked potential monitoring includes somatosensory evoked potentials (SSEP), brainstem auditory evoked potentials (BAEP), motor evoked potentials (MEP), and visual evoked potentials (VEP). Electromyography (EMG) also is used extensively during operative cases. Scalp electroencephalography (EEG) provides data for analysis in SSEP, BAEP, and VEP. Scalp EEG also can be used to monitor cerebral function. In addition, EEG recorded directly from the pial surface, or electrocorticography (ECoG), is used to help determine resection margins for epilepsy surgery, and to monitor for seizures during electrical stimulation of the brain carried out while mapping cortical function. Material and Methods: we report our initial experience with 35 neurosurgical patients (7 insular gliomas, 5 gliomas and 2 cavernomas, both in or adjacent to the primary motor cortex, 2 large glomus jugulare tumors, 7 vestibular schwannoma and 12 skull base meningiomas). Results: The surgical approach, postoperative neurological examination and tumoral resection are analyzed and discussed. Somatosensory evoked potentials (SSEP), motor evoked potentials (MEP), cranial nerves V, VII and XI was performed in all patients. Brainstem auditory evoked potentials (BAEP) and cranial nerve III, VI and XII, as well cortical and subcortical stimulation was performed in selected cases. Conclusion: intraoperative monitoring is an important tool in the current neurosurgical armamentarium, but deep microsurgical anatomy knowledge is paramount. The sensitivity and specificity as well as predictive values of this method are still not totally understood.