



## DIRECT CORTICAL STIMULATION IN THE ABLATION OF GLIAL CEREBRAL TUMORS IN THE MOTOR AREAS.

**VIOREL MAXIAN**

### **Introduction**

The genesis of tumors is unknown in our days. Surgery represents the effective treatment in this disorder. According to many surgeries on brain tumors in the motor areas, postoperatively a motor deficit rate of 30% has been observed.

### **Keywords**

brain tumors, eloquent motor areas, direct cortical stimulation

### **Purpose**

The Evaluation of direct cortical stimulation (SDC) in the surgical treatment of glial brain tumors in motor areas.

### **Material and methods**

The examination group includes 35 patients with brain tumors localized in the parasylvian region. Direct Cortical Stimulation was intraoperatively used in order to establish the motor areas.

For the evaluation of the neurological deficit, a comparative analysis of the pre- and postoperative motor deficit was performed.

### **Results**

Direct Cortical Stimulation was performed in 35 patients. During the performing of Direct Cortical Stimulation, motor areas were detected in 32 patients, but in 3 patients-under the control of Direct Cortical Stimulation, subtotal and partial tumor resection was performed in 31 patients and due to the location of the tumor in the motor area in 1 patient, a biopsy was performed. The worsening of the postoperative motor deficit was recorded in the partial ablation for 2 patients and biopsy for 1 patient where the tumor was directly localized in the motor area. Direct Cortical Stimulation in the degree of total and subtotal ablation prevented postoperative motor deficit at discharge in 22 patients.

### **Conclusions**

In order to avoid postoperative neurological consequences and improve the patients' *quality* of life, it is appropriate to use intraoperative Direct Cortical Stimulation.