

LOW GRADE INSULAR GLIOMAS – INITIAL EXPERIENCE WITH 12 CASES

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The insula is located deep to the sylvian fissure and the frontal, parietal, and temporal opercula. Several anatomical structures which damage of these can cause severe neurologic disability are intimately related to the insula: middle cerebral artery and internal capsule as well language areas are some of them. Material and methods: Between march 2007 and november 2010, 12 patients referred from south Brazil region underwent surgery for a WHO Grade II glioma involving the insular lobe by one of the authors (GRI). The topography of the tumor was accurately analyzed on preoperative MR images. Magnetic resonance image tractography was performed in 6 patients. Neuropsychological examination was done in 7 patients. Glioma location was categorized using the classification of Yaşargil. Intraoperative somatosensitive and motor evoked potential were performed to check the anatomical and functional integrity of the pyramidal pathways Results. Total resection was achieved in 7 patients, subtotal in 3 and partial in two. Except for one case, there was no postoperative neurological deficit. Conclusion. We believe that our results support resection as the primary treatment for many patients with gliomas of the insula. The microsurgical anatomy knowledge and microsurgical laboratory training is paramount to perform a safe surgery. Brain mapping and intraoperative neurophysiologi monitorization has improving the safety of the procedure.