

## **Can patients who underwent neurosurgery for gliomas get a significant improvement from rehabilitation?**

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Introduction: Patients who underwent neurosurgery are a strong test for rehabilitation units (high length of stay, high resource consuming, poor prognosis). It is still controversial if such patients (most patients with neoplastic disease) can get a significant improvement from rehabilitation. The aim of the study was to evaluate outcome comparing malignant and non malignant patients hospitalized in our rehabilitation unit. Material and Methods: We considered 55 patients hospitalized in our rehabilitation unit between March 2011 and July 2016 with who underwent intracranial surgery. Their age was between 20 and 84, with an average of 55.1, SD 14.4. In 34 patients out of 55 (61%) there was no malignancy. 11 (20%) were affected with neoplastic disease with poor prognosis, the remaining with low malignancies. Results: The mean length of stay was 60 days $\pm$ 61. The mean delay between surgery and admission was 32 days. Mean modified Rankin Scale ad admission was 4.3 $\pm$ 0.7. At discharge 3.3 $\pm$ 1.3. 32 patients (58.1%) were discharged at home, 2 deceased, 7 were sent to other rehabilitation facilities, the others went back to neurosurgery, neurology or intensive settings. People who went back home had a higher mean GOS: 4  $\pm$  0.9 (in the others 3 $\pm$ 0.7). Po.oo1, two tails t test. Modified Rankin Scale at discharge was lower in patients who were discharged home. There was no significant relation between discharge at home and malignancy (chi square test). Discussions and conclusions: Our patients can get a significant improvement from rehabilitation, no matter if affected with malignancies or other intracranial pathology.