A CLINICAL RADIOLOGICAL GRADING SYSTEM TO ASSESS THE ELIGIBILITY TO SURGERY OF ELDERLY PATIENTS AFFECTED BY INTRACRANIAL MENINGIOMA

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Objectives Intracranial meningiomas are generally benign tumors affecting 1-2.8 patients/100000 inhabitants younger than 65 every year. In the elderly, the incidence is higher affecting about 8.5 patients/100000 inhabitants every year. In the last category, the surgical management has changed since the early 90's due to the increase in life expectancy, safer surgical techniques and better anesthesiological procedures. Particularly, many different aspect of this intracranial pathology are conflicting and challenge the surgeon to decide what is the best treatment.

Materials and Methods In our Institution, since the early 90's, this problem has been taken into account. As a matter of fact, factors affecting surgical outcome of elderly patients with an intracranial meningioma have been studied. Clinical variables considered in our works are Karnofsky performance status (KPS), co-morbidities and neurological deficits. We have identified also radiological criteria that can aid the surgeon to select patients that could benefit from a surgical treatment. Radiological criteria are perilesional edema, size of the lesion and its location.

Results According to our knowledge, a clinical radiological grading scale (CRGS) has been made to better select patients eligible to surgery and has been validated during the last five years by us and by other authors. Patients with a score higher than 13 are supposed to have a better outcome with low morbidity and no post-operative mortality; while patients scored between 10 and 12 are supposed to benefit from surgery with an acceptable post-surgical mortality rate and morbidity. In this last group of patients, the CRGS is also related with post-operative complications and the needs of physical rehabilitation after surgery. Patients scored 10 or lower are not considered to be eligible to surgery and need palliative cares or other treatments. In patients with KPS lower than 70, the CRGS is related to an improvement of KPS after surgery.

Conclusions The CRGS is an important score predicting post-operative outcome of patients affected by an intracranial meningioma and it is a useful score for selecting patients eligible to surgery. Moreover, it is a reliable score in predicting neurological improvement after surgery.