

# Single Institution Experience with 127 Cases of Meningioma Treated with Radiosurgery and Stereotactic Radiotherapy Experience of The Oncology Hospital, Mexican Social Security Institute

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## Abstract

**Objectives:** The aim of this observational study was to determine the radiological tumor response obtained in patients diagnosed with meningioma, not resected or with residual disease treated with radiosurgery with CyberKnife platform, evaluate toxicity and symptom control.

**Methods:** From September 2012 to June 2015, 127 patients, 99 female, 28 men, with a median age 57 years, affected by intracranial meningiomas, were treated with Cyberknife system in our Department of Radiation Oncology. Median tumor volume was 5.56cc.

**Results:** Local control was analyzed using serial images and also clinical outcomes. Median follow up was 32 months. The intention of the treatment was: 33% as adjuvant treatment after surgery, 11% for recurrent tumors and 71% of patients were treated with radical intent. 53% were treated with 14 Gy in a single fraction SRS and 47% with fractionated stereotactic radiosurgery to a total of 25 Gy. Local control was achieved in 99% of the patients with only 1% of progression. Toxicity grade 2 was present in 8% of patients which required treatment. During follow up, 12% of patients presented edema and 14% necrosis on MRI.

**Conclusions:** Stereotactic radiosurgery and fractionated stereotactic radiotherapy with Cyberknife is safe and effective treatment in patients with meningiomas not only in the postoperative context but also as a radical treatment.

#### Open Access

#### Abstract

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