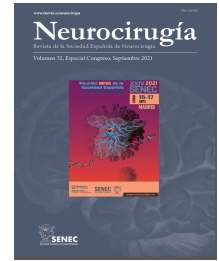




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## C-0263 - LESSONS LEARNED FROM GKRS IN HYPOTHALAMIC HAMARTOMAS: SERIE OF 36 CASES IN A SINGLE CENTER

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### Resumen

**Objectives:** Hypothalamic hamartomas (HHs) are a rare medical condition where principal symptoms include precocious puberty, endocrinological disturbances, mental retardation and epilepsy. Several treatments had been tried for HHs, but most of them, specially the conventional surgery, showed a high complications rate. For this reasons, gamma knife radiosurgery (GKRS) is one of the preferred treatment options. Our aim is to describe our experience in that matter.

**Methods:** We report 36 patients who underwent GKRS in our institution between 2000 and 2019, and were selected for radiosurgery according to refractory epilepsy criteria, all of them suffering at least from gelastic seizures. Hypothalamic hamartomas from 0.2 to 14 cc were described in 3T MRI and a complete neurological examination was performed including video-EEG. 4C, Perfexion and ICON models from Elekta® were enroled in the treatment and GammaPlanner® was used as planning software. Optic chiasm, optic tracts, hypophysis, III cranial nerve and brainstem were considered as structures at risk. Patients were followed-up by using MRI, regular medical controls and telephone interviewing.

**Results:** Median age was 15, 58.3% were women and most of them (44.4%) were classified as Delalande type II, followed in frequency by type I (37%). Tumor control was achieved according to MRI studies in 92% of documented cases within 1-10 years of follow-up; 56.5% decreased the volume (22.83% of average volume reduction). For all HHs types, 64.5% achieved good outcome (Engel I and II outcome score) and 36.1% underwent retreatment, being more frequent when increasing in Delalande classification from 30% of type I to 100% of type IV.

**Conclusions:** One of the world largest series of hypothalamic hamartomas treated by GKRS is presented. GKRS demonstrated to be a safety treatment for local control, achieving the best outcomes, in terms of Engel score and need of retreatment, in HHs Delalande types I and II.