

Stereotactic radiosurgery for Parkinson's tremor: 2 years of experience in a medical center

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Abstract

Aim: Stereotactic radiosurgery was developed with the aim of providing non-invasive treatment in neurosurgical pathologies, including functional pathologies such as essential tremor associated with Parkinson's disease where the ventral intermediate nucleus of thalamus has been used as a target with proven success. Most treatments have been reported with gamma knife, radiosurgery with lineal accelerator (LINAC) have also shown successful results.

Objetives: Between March and April of 2023 at Puebla Specialties Hospital of the Instituto Mexicano del Seguro Social (IMSS), radiosurgical treatment was carried out on 5 patients with Parkinson's disease refractory to pharmacological treatment, all with different forms of presentation from spastic to kinetic.

Methods: The patients were treated with radiosurgery through LINAC using dose of 75 to 85 Gy in a single session randomly, with monthly monitoring maintained during 6 months. The initial period to assess the effects of treatment was at 6 months with an improvement in control of involuntary movements of at least 70% assessed by neurological tests such as UPDRS, Hoehn-Yahr and Swarb-England.

Results: treatment of radiosurgery with LINAC in tremor associated with Parkinson's disease is an effective option.

Conclusions: In our Medical Center with the combination of pharmacological medical has observed improvement in quality of life for patients. Dose escalation is expected in subsequent months in relation to the chosen patient.



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