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Abstract

Cyberknife Radiosurgery for Trigeminal Neuralgia and Epilepsy

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Abstract

Stereotactic radiosurgery provides an established treatment option for Trigeminal Neuralgia(TN). Cyberknife image-guided frameless radiosurgery provides a thoroughly non invasive treatment option sparing to the patients the application of a stereotactic frame to fix the head . The efficacy and precision of Cyberknife treatment for TN has been recently shown in a paper published on Neurosurgery(Romanelli et al, Image-Guided Robotic Radiosurgery for Trigeminal Neuralgia). This paper reports the largest published cohort of patients treated with Cyberknife Radiosurgery (138) with a prospective follow-up reaching over 6 six years. Overall, 75% of the treated patients achieved long-term control of the pain and was pain free 5 years after the treatment. No major neurological complication was described. One patient reported dysesthesias following the treatment. These results compare very favourably with any other surgical approach for TN, including microvascular decompression and percutaneous procedures, as well as with other frame-based radiosurgical series. Cyberknife treatment has been also performed on highly selected patients with medically-refractory epilepsy, with favourable results.

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