

Radiosurgery of Cavernous Sinus Tumors

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Cavernous sinus tumors represent significant surgical challenge due to their location in close vicinity to functionally important neurovascular structures. In fact, the vast majority of such lesions may be effectively treated with stereotactic radiosurgery (SRS), which results in excellent rates of tumor control and very low risk of permanent complications. In patients with benign cavernous sinus tumors (meningiomas, pituitary adenomas, hemangiomas, and schwannomas) who underwent Gamma Knife Surgery in Tokyo Women's Medical University and were followed at least 2 years after irradiation, tumor growth control was 98%, tumor shrinkage rate was 68%, and major morbidity rate was 0.8%, which compares favorably with published surgical series. In cases of malignant cavernous sinus tumors SRS is usually applied as salvage treatment at the time of recurrence, and may significantly increase quality of life of patients with incurable diseases.