# Cerebellar hemangioblastoma treatment

### Surgery

see Cerebellar hemangioblastoma surgery.

#### **Embolization**

see Preoperative embolization of intracranial hemangioblastoma.

In a literature review, preoperative embolization did not increase rates of gross total resection, decrease estimated blood loss, or decrease the incidence of complications. Not only does embolization fail to mitigate surgical risks, but the embolization procedure itself also carries a significant risk for complications. Embolization should not be standard of care for intracranial hemangioblastoma <sup>1)</sup>.

Suzuki et al. emphasize the usefulness of embolization with N-butyl cyanoacrylate for hemangioblastoma with ruptured feeder aneurysm, by which the aneurysm and the feeder could be simultaneously embolized <sup>2)</sup>.

## Gamma Knife radiosurgery

Gamma Knife radiosurgery is a successful long-term treatment option for hemangioblastomas changing the clinical course from saltatory growth to a reduction in tumor volume. Non-cystic tumors and those without prior craniotomy were associated with a greater percent reduction in volume from GKRS at last follow-up <sup>3)</sup>.

A retrospective chart review revealed 12 patients with a total of 20 intracranial hemangioblastomas treated with GKRS from May 1998 until December 2014. Kaplan-Meier plots were used to calculate the actuarial local tumor control rates and rate of recurrence following GKRS. Univariate analysis, including log rank test and Wilcoxon test were used on the Kaplan-Meier plots to evaluate the predictors of tumor progression. Two-tailed p value of <0.05 was considered as significant. Median follow-up was 64months (2-184). Median tumor volume pre-GKRS was 946mm3 (79-15970), while median tumor volume post-GKRS was 356mm3 (30-5404). Complications were seen in two patients. Tumor control rates were 100% at 1year, 90% at 3years, and 85% at 5years, using the Kaplan-Meier method. There were no statistically significant univariate predictors of progression identified, although there was a trend towards successful tumor control in solid tumors (p=0.07). GKRS is an effective and safe option for treating intracranial hemangioblastoma with favorable tumor control rates <sup>4)</sup>.

#### References

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