Residual tumor

- Early adjuvant radiation reduces the rate of recurrence following surgery for silent corticotroph pituitary neuroendocrine tumors
- Surgical tumor volume reduction in patients with brain metastases: A systematic review and meta-analysis
- Impact of Extent of Resection on Survival in Brain Metastasis: An Analysis of 867 Patients
- Comparison of sodium fluorescein and sodium fluorescein with intraoperative ultrasonography Efficacy in glioblastoma resection
- Fluorescence-Guided Surgery for Gliomas: Past, Present, and Future
- Hydrocephalus after Gamma Knife Surgery for Vestibular Schwannoma Resolved by Tumor Removal without Cerebrospinal Fluid Diversion: Report of Two Cases
- Nonfunctioning Ectopic Pituitary Adenoma: A Rare Case Report from Southern Asia
- Primary intracranial cholesteatoma in the thalamus

The only study that compared this estimation with the presence of residual tumor mass on an MR image, dates back to 1994 [1].

It may be difficult to differentiate between surgically induced enhancement and residual tumor.

Intraoperative dynamic contrast enhanced MRI provides quick, reproducible, high-quality, and simply interpreted dynamic MR images in the intraoperative setting and can aid in differentiating surgically induced enhancement from residual tumor [2].

The tumor status following treatment is described by the residual tumor (R) classification: R0, no residual tumor; R1, microscopic residual tumor; R2, macroscopic residual tumor. A residual tumor may be found in the area of the primary tumor and its regional lymph nodes and/or at distant sites. The R classification reflects the effects of treatment and influences further treatment planning. Furthermore, the R classification is a strong predictor of prognosis. An acceptable long-term prognosis can be expected only in R0 patients. Although there exist clear correlations between stage and R classification the differences in prognosis of R0 versus R1,2 cannot be explained by differences in stage alone.

Residual vestibular schwannoma

1)
Albert FK, Forsting M, Sartor K, Adams HP, Kunze S (1994) Early postoperative magnetic resonance imaging after resection of malignant glioma: objective evaluation of residual tumor and its influence on regrowth and prognosis. Neurosurgery 34:45–60 discussion 60- 41
2)
Özduman K, Yıldız E, Dinçer A, Sav A, Pamir MN. Using intraoperative dynamic contrast-enhanced T1-weighted MRI to identify residual tumor in glioblastoma surgery. J Neurosurg. 2014 Jan;120(1):60-6. doi: 10.3171/2013.9.JNS121924. Epub 2013 Oct 18. PubMed PMID: 24138206.