SURG-23. OUTCOMES IN PATIENTS WITH VESTIBULAR SCHWANOMA AFTER SUBTOTAL RESECTION AND ADJUVANT RADIOSURGERY

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BACKGROUND: Debate continues between gross total resection (GTR) vs subtotal resection (STR) in patients with large size vestibular schwannoma (VS) in whom primary stereotactic radiosurgery (SRS) is not feasible. There are a limited number of publications that describe outcomes in patients with large VS whom are treated with planned STR and adjuvant SRS. Here we present our experience with this technique. METHODS: This is a retrospective review of 23 patients with Koos grade III and IV VS whom were treated with subtotal resection followed by SRS. Tumor volumes, facial nerve function, hearing preservation, and the presence of trigeminal neuropathy were noted. Spearman’s rank test was used to correlate facial nerve grade with postoperative tumor residual tumor volume. RESULTS: Tumor control was achieved in 21/23 patients with a mean follow up of 25 months. Only in 2 patients 6 months post SRS MRI showed a slight increase in volume as it is commonly seen within first year after SRS. After a mean postoperative period of 12 months 91% of patients had excellent (H&B I or II) and good (H&B III) facial nerve function grading. Better facial nerve function was positively correlated with larger residual tumor volume ($r_C = 0.66$). Kaplan Meier curve showed a more than 50% probability for regaining facial nerve function after initial deterioration. Four patients reported postoperative facial numbness at the side of surgery, with 3 cases reporting improvement within a month. Temporary caudal cranial nerve dysfunction was reported in 2 patients. CONCLUSION: Hybrid strategy of subtotal resection and adjuvant SRS provide patients with large VS an excellent tumor control and good clinical outcome.