



Trigeminal Schwannoma: Discussion of Surgical Approach and Analysis of Outcome

Peng Gang MD; Liu Qing

Introduction: Trigeminal neurinomas are the second most common intracranial neurinomas next to the vestibular neurinomas. Over the last few decades, several pioneers have developed surgical approaches enabling the total removal of such tumors. between 1994 and 2012 , we treated 51 patients with trigeminal schwannoma and got perfect effect.

Methods: In this series, there were twenty-one women and thirty-one men . Duration of symptoms ranged from 10 days to 12 years. The most frequent symptoms were headache or hypesthesia of the ipsilateral hemiface. Eight cases that tumors belonged to Type M used frontotemporal approach, eighteen cases that tumors belonged to Type P were operated on via a retrosigmoid suboccipital craniectomy; Twenty cases that tumors belonged to Type MP were removed via frontotemporal approach or retrosigmoid suboccipital craniectomy; Three cases that tumors belonged to ME and two cases that tumors belonged to MPE were removed via the orbitozygomatic infratemporal fossa approach .

Results: The follow-up period ranged from 6 months to 18 years. The tumors were totally removed in 47 patients (91.16%) and were nearly completely removed in 3 patients (5.88%), the tumor was partly removed only in one patient. Two cases were recurrence trigeminal schwannoma after surgical operation in other hospital. No recurrences requiring additional surgery have occurred after an average follow-up period of 5.04 years. there were no operative mortality in this group. One patient suffered postoperative bleeding in the operation area in the seventh day and caused large area cerebral infarction in ipsilateral hemisphere, the patient had a long- time coma;

Conclusions: Surgical operation should be the first choice of trigeminal schwannoma . Most of the trigeminal schwannomas could be removed totally and safely during a single operation . Radiosurgery can be an effectively adjuvant therapy for residual or recurrent tumors that cannot surgically be removed or for patients who are unable to undergo surgery.

Learning Objectives: Enlarge the insight and improve the clinical technology to serve more patients.

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