

Objective: Petroclival meningiomas (PM) are the most challenging intracranial neoplasms for surgical treatment. Advanced number of postop neurological deteriorations induces us for searching the ways to minimize surgical trauma during surgery. Surgical access to PM is one of the most important factors that predispose success of procedure. In this report we are focused on analysis of suboccipital craniotomy (SC) for surgery of PM as most universal and simple approach.

Method: Overall 46 patients with PM were operated on in one clinic by one neurosurgeon from 2009 to 2018. Ratio F/M was 37/11. Age of patients ranged from 34 to 67 y. (mean- 49,7). PM were presented according to location: petroclival - 32 (70%); sphenopetrosal - 14 (30%). SC in different modifications was applied in 27 patients.

Results: 15 (52%) of 29 petroclival meningiomas operated on via SC were removed completely, 9 (31%) sub-totally, and 5 (17%) partially. In group of 12 sphenopetrosal meningiomas, 7 removed sub-totally, and 5 partially. New neurological deficit (IV, V, VI in different combinations) was observed after 7 interventions. In 2 patients postop CSF leakage required surgeries. None lethal case reported. One patient was operated on due to progression of incompletely removed CM.

Conclusion: Majority of patients with PM could be operated on via SC. This non-traumatic simple and flexible approach provided safe and adequate tumor removal with good functional result. Selection of patients for SC is very important.

**22. Combination of trigeminal neuralgia and cerebellopontine angle tumors.
Modern diagnosis and treatment approaches: literature review and own
observations analysis**

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Background. Trigeminal neuralgia (TGN) with cerebellopontine angle (CPA) tumors is predominantly caused by cranial nerve V compression by tumor masses. However, reports are available on the combined pathology within one case study: CPA tumors plus TGN caused exactly by neurovascular conflict (NVC).

According to international literature data, combination of cerebellopontine angle (CPA) tumors and trigeminal neuralgia (TGN) is 3% to 16%, in average $8\pm4.5\%$. TGN primarily occurs with CPA cholesteatomas ($47\pm16.5\%$), meningiomas ($35\pm16.3\%$), vestibular schwannomas ($17\pm10.1\%$), and other tumors ($1\pm2.7\%$).

The aim of our study. Analyze frequency and clinical features of symptomatic trigeminal neuralgia (TGN) in patients with cerebellopontine angle (CPA) tumors before and after surgical treatment.

Methods. Retrospective study of outcomes of CPA tumor patients treatment in Mechnikov Dnipropetrovsk Regional Hospital from 2010 to 2018 inclusive was performed.

Result. The study included 11 symptomatic TGN patients, which made 6.5% of the sample size (168 CPA tumors). Our results are a bit different from international ones in terms of histological structure of the tumors. In 4 patients, TGN was caused by vestibular schwannoma, 3 by meningioma, 3 by epidermal cyst and 1 by trigeminal schwannoma. In 8 cases, as opposed to classic TGN, the pain was dull and much more longer and in 7 patients it was combined with ipsilateral facial numbness. In 9 patients, neuralgia was caused by nerve compression by a tumor, in 2 patients by NVC combined with CPA tumor (vestibular schwannoma or meningioma). The combined pathology was revealed during magnetic-resonance imaging and confirmed intraoperatively. Microvascular trigeminal nerve decompression was performed along with tumors removal. In the postoperative period, all patients had positive changes due to weakened manifestation of pain syndrome. However, in 5 patients hypoesthesia symptoms remained at preoperative level and gradually regressed at 3, 6, and 12 month follow-ups.

Conclusion. 1. In our study, symptomatic neuralgia occurrence in CPA tumors patients was 6.5% (11 of 168). 2. All TGN patients shall undergo brain magnetic-resonance imaging with mandatory inclusion of cerebral nerves imaging in order to visualize the NVC or other factors provoking neuralgia. 3. In case of combined tumor and vascular compression, revision of trigeminal nerve root and, if necessary, microvascular decompression shall be performed along with tumor removal.

KEY WORDS: trigeminal neuralgia, cerebellopontine angle tumor, symptomatic neuralgia, secondary neuralgia, neurovascular conflict, microvascular decompression.

23. Surgical management of trigeminal schwannomas.

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Background: Trigeminal schwannomas (TS) are rare intracranial tumors of the skull base, accounting for up to 0.5 to 1.5% of intracranial lesions. They are, however, the second most common among intracranial schwannomas. The **aim** is detailed review of the surgical management of TS and also discuss the best surgical approach based on the surgical anatomy and tumor extension.