
SURGICAL TREATMENT OF ACOUSTIC NEUROMAS: PROGNOSTIC FACTORS IN THE PRESERVATION OF MOTOR FUNCTION OF FACIAL NERVE (Abstract)*. Thesis. São Paulo, 1994.

*EDUARDO DE ARNALDO SILVA VELLUTINI***

Although the development of the microsurgical technique in the last 20 years has brought a great improvement in the results of the acoustic neuroma surgery, the preservation of facial nerve function still poses as a great technical challenge for the otologist and the neurosurgeon. After the widespread use of new therapeutic modalities, such as radiosurgery, in addition to the better knowledge of the natural history of this tumor, the determination of the prognostic factors influencing the post-operative facial nerve function gains much more importance.

Fifty patients submitted to surgical removal of acoustic tumors were studied, with special emphasis on the statistical correlations between the post-operative facial nerve motor function and some clinical, radiological and intra-operative findings. It was also considered the determination of the best period for the adoption of surgical reinnervation procedures for the facial muscle, when necessary.

The results showed that tumor volume and the age of the patient can together influence the facial nerve function in the post-operative period. Aged patients with large tumors present less probability of preserving facial nerve function, defined in this study as grades I to III of House grade system. It could also be determined that huge and irregular tumors have greater probability of adherence to the brainstem. There was also a statistically significant association of the adherence of the tumor to the brainstem and the post-operative facial nerve function.

The results of the intra-operative electrical stimulation of the facial nerve proved to be, in some cases, not reliable, in disagreement with some reports in the literature. Some patients, in despite of a negative intra-operative response to electrical stimulation of the facial nerve, showed a good nerve function in the follow-up. This procedure can thus not be an indicator of surgical resection and anastomosis of the facial nerve at the time of removal of the acoustic neuroma. The improvement in function of an anatomically preserved facial nerve observed in some patients between the sixth and the twelfth post-operative month, suggests that no surgical reinnervation procedures for the facial muscles should be performed before this period of time.

KEY WORDS: acoustic neuroma, facial nerve, motor function, post-operative, prognostic factors.

*Tratamento cirúrgico do neurinoma do acústico: fatores prognósticos na preservação de função motora do nervo facial (Resumo). Tese de Doutorado, Faculdade de Medicina da Universidade de São Paulo (Departamento de Neurologia). Orientador: José Luzio.

**Address: Praça Amadeu Amaral 47 conj 112 - 01327-010 São Paulo SP - Brasil.