NEUROFIBROMAS OF THE FIFTH CRANIAL NERVE*

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Jefferson, in a recent review of the literature and report of his own cases, analyzed 32 instances of trigeminal neurofibromas. Baker and Bailey, Cushing and Eisenhardt, Gonzalez Revilla, Loew and Tonnis, and Davidoff and Epstein also have reported another 11 cases, so that the total number thus far reported is 43.1-19, 21-24, 26-28

PRESENT STUDY

In this communication we are reviewing 13 cases in which solitary neurofibromas (neurilemmomas) of the fifth cranial nerve were encountered at the Mayo Clinic. We have excluded all cases of von Recklinghausen’s disease.

For purposes of this study, the cases were divided into three groups morphologically, according to whether the lesions arose mainly in the middle cranial fossa, subtentorially in the posterior fossa, or in both situations in more or less equal extent. However, some of the tumors that presented in either the middle or posterior fossa also had extended slightly into the other fossa.

Jefferson found that in the 32 cases he reviewed, 15 lesions were mainly or entirely tumors of the middle fossa, 11 were situated in the posterior fossa and 6 were tumors of both the middle and posterior fossas. In our series, 6 lesions were restricted primarily, if not entirely, to the middle fossa, 4 were essentially limited to the posterior fossa and 3 were both supratentorial and infratentorial.

We found that very often it is difficult to make an early diagnosis of this kind of tumor. In our series, some change in the cutaneous sensibility of the face constituted an early finding in only 6 instances, and in 2 patients symptoms and signs of involvement of the fifth nerve were absent. In only 4 cases was pain present in the distribution of the fifth nerve, and this pain was not tic-like, although it was periodic in one instance. In another case the pain extended from the region of the ear into the paratracheal and inferior mandibular region and it was also periodic.

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484
We found (Fig. 1) that the tumor occurred most frequently in the fourth decade (6 patients), next in the fifth decade (4 patients), less frequently in the third (~ patients) and in the sixth decade (1 patient).

![Distribution of trigeminal neurofibromas according to age of patients.](image)

**SUPRATENTORIAL TUMORS**

*Case 1.*—A white married woman 45 years old registered at the clinic in 1939, complaining of progressive left exophthalmos during the preceding 4 years. During this interval she had noticed, in the back of the neck, pain which occasionally would awaken her at night. This pain frequently would be present when she awoke, and would disappear after she was up and around.

Ophthalmologic examination revealed exophthalmos of 7 mm. on the left side. Results of neurologic examination were negative. Roentgenograms of the skull showed enlargement of the sella turcica, with erosion of the floor and the posterior clinoids. The visual fields appeared to be normal. A diagnosis of unilateral exophthalmos of undetermined origin was made. Roentgen therapy was advised and accepted. It was administered to the pituitary and retro-orbital region.

Three months later the patient returned. She said that since the last visit she had experienced repeated vomiting, pain in the left eye, blurred vision and some disturbance of memory. Ophthalmologic examination revealed slight pallor of the left optic disk and bitemporal upper quadrantic contraction in the visual fields. New roentgenograms of the skull were made; they disclosed an increase in the erosion of the posterior clinoids over the erosion that had been noticed at the previous examination. A diagnosis of a chiasmal lesion was entertained.

On April 13, 1939, left transfrontal craniotomy was carried out. An extrasellar mass was present anterior to the optic chiasm. Biopsy proved this to be a neurofibroma (neurilemmoma). Intracapsular removal was carried out and most of the capsule was removed. The tumor did not appear to invade the orbit.

The patient had a stormy postoperative course and died on the 6th postoperative