Case Report and Technical Notes

Adult Teratoma of the Gasserian Region

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Observations on tumors located in the medial part of the middle cranial fossa have become rather frequent in recent years. Different kinds of tumors may be found in such a position, the majority of them giving rise to typical clinicoradiological syndromes. Neurinomas of the gasserian ganglion and meningiomas attached to the floor of the middle fossa seem to be the most common among the extracerebral tumors of this region. By contrast, the benign teratoma removed successfully 10 years ago, and reported on in this paper, constitutes an extremely rare variety of tumor localized to the medial part of the middle fossa. We have not been able to find in the literature another case of teratoma with such a location. It may be remembered that Weber in a paper dealing with 71 cases of teratoma (including 7 personal observations) described a patient with an orbital tumor extending into both the anterior and the middle fossa. The patient had no symptoms from the oculomotor or trigeminal nerves. Epidermoid tumors of the gasserian region seem to be somewhat more frequent than teratomas (1 case, Fasiani et al., 3 cases, Baumann and Bucy). Apart from the rarity of our case, the clinical syndrome typical of the location and the highly characteristic radiological changes seem to be of interest.

Case Report

M.A., a 7-year-old boy, was admitted to the Neurosurgical Clinic of Serafimerlasarettet on May 8, 1952. In the 2 years before admission his father had observed a progressive left-sided exophthalmos. Six months after the onset of the symptoms the boy started to complain of severe pain on the left side of his face. The pain was localized to the left eye, but often extended to the cheek and lips as well. It occurred in attacks lasting about 15 min., sometimes several hours. It was usually fairly severe, and at times was followed by lacrimation, reddening of the conjunctiva, and even vomiting. During the past few months, the attacks of pain had become increasingly frequent.

Examination. Vision OD 5/5, OS 5/15; exophthalmos on left side (difference of 6 mm. between the 2 eyes). Diminution of sensibility in whole territory supplied by left trigeminal nerve. Left corneal reflex weak, and corneal ulceration present. Slight peripheral facial palsy on left side, and some impairment of caloric vestibular reactions on the same side.

Radiograms of the skull (Figs. 1 and 2) revealed:

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fairly typical example of a benign adult teratoma composed of differentiated mature tissue. The microscopical appearances call to mind 1 of the 2 cases of teratoma of the posterior fossa described by one of us (Case 16). In that paper, the origin, development and pathology of teratomas were also discussed. Our present tumor occurred in a male child, and this is in agreement with the general belief15 that teratomas tend to occur in the young and only very occasionally in girls. They are considered to be partly cystic in the majority of cases.7 The tumor reported here was macroscopically completely solid, but small cysts were found on histological examination. It was quite hard in consistency, and not vascular; indeed, its gross appearance did not differ much from a neurinoma.

The clinical syndrome was fairly typical of the region involved. The association of exophthalmos, signs of involvement of the homolateral optic nerve, and trigeminal signs and symptoms are suggestive of a location in the anteromedial part of the middle fossa. Our patient had no ocular palsy, however, in spite of the very close relation of the tumor with the cavernous sinus. In our experience, ocular palsy is a common finding in connection with both neurinomas14 and chordomas13 growing in the region of the gasserian ganglion. Two of the 3 cases of paratrigeminal epidermoid tumor reported by Baumann and Bucy,4 as well