Optic Glioma and Pituitary Adenoma in the Same Patient
Case Report

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GLIOMAS OF the optic nerve are relatively rare tumors, but, when present, are frequently associated with other intracranial tumors as part of von Recklinghausen's neurofibromatosis. The following case demonstrates the simultaneous occurrence of a glioma of the optic nerve and a pituitary adenoma. There were no obvious manifestations of von Recklinghausen's disease. Either one of these unrelated tumors could have involved the optic apparatus.

Case Report

A 51-year-old colored man was admitted to Johns Hopkins Hospital on August 12, 1962, because of gradual diminution of vision in the left eye of 6 years' duration, which had increased in recent months.

Examination. There was severe primary optic atrophy in the left eye with a visual acuity of 10/200 and a suggestion that the temporal field was lost to a greater degree than the nasal field. Visual acuity, fields, and fundoscopic examination were completely normal in the right eye. The remainder of the neurological examination was normal. There was no complaint of headache and nothing to suggest pituitary dysfunction. Routine x-rays of the skull revealed an enlarged sella turcica (Fig. 1), suggesting an adenoma of the pituitary.

A second tumor was suspected since all findings were confined to the left eye. X-rays of the optic foramina (Fig. 2) showed enlargement of the left foramen. This strengthened our suspicion of a second tumor since, in our experience, a pituitary adenoma does not cause enlargement of the optic foramen.

Operation. On August 18, one of us (F.J.O.) explored the optic nerves and chiasm through a left frontal craniotomy. The left optic nerve was markedly swollen by an intrinsic tumor. The chiasm was not involved. The left optic canal and posterior orbit were unroofed. The tumor did not extend into the globe. The left nerve was excised, sparing the globe and the chiasm. A pituitary tumor, extending above the diaphragma sellae, was then easily visualized. It did not impinge upon the chiasm. This grape-sized tumor was also removed.

The pathological specimens showed a typical chromophobe adenoma (Fig. 3) and a glioma of the optic nerve (Fig. 4).

Postoperative Course. When he was last seen on February 25, 1967, at his yearly check-up, the left eye was blind; the right eye was completely normal. Repeat skull x-rays showed that the sella turcica was slightly smaller than on the original films made in 1962. No x-ray therapy had been given.

Discussion

We have been unable to find any reports of this unusual combination of tumors. The coincidence is significant in that the more obvious and more common adenoma was in no way related to the patient's symptoms. Failure to suspect the glioma preoperatively would not have affected its discovery and removal in this case, since it was quite obvious intraclinically. A similar glioma or meningioma confined to the orbit or optic canal

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Fig. 1. Routine lateral x-ray of skull showing enlarged sella.
might have been missed if not suspected preoperatively. The involvement of one optic nerve without chiasmal signs must cast suspicion upon the diagnosis of a single pituitary tumor even when such a tumor is known to be present.

**Summary**

We have reported a case of a 51-year-old man in which a glioma of the optic nerve and a pituitary adenoma occurred simultaneously. No previous reports of this coincidence have been found. The presence of the optic glioma, an uncommon tumor at this age, was suspected preoperatively and confirmed at operation.

**References**

1. **Davis, F. A.** Primary tumors of the optic nerve (a phenomenon of Recklinghausen's disease). A