METASTATIC PINEALOMA INVOLVING THE OPTIC CHIASM

GEORGE S. BAKER, M.D., AND C. WILBUR RUCKER, M.D.

Section on Neurologic Surgery, and Section on Ophthalmology,
Mayo Clinic, Rochester, Minnesota

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When blindness results from a brain tumor, recovery of vision seldom ensues, even after removal of the tumor. An exception occurred in a case in which a pinealoma had metastasized to the optic chiasm and optic nerves. The bizarre manner in which pinealoma may affect the central nervous system has been stressed by Stringer, Baggenstoss and Love, Kubik, Russell and Troland and Brown. Horrax and Wyatt have described ectopic masses of pinealomas about the optic chiasm.

REPORT OF A CASE

A boy 17 years old complained of rapid loss of vision during a period of 3 weeks. For 1 week he had suffered headache of moderate intensity. Polydipsia and polyuria had been present 2 years, and had been controlled by the patient's local physician with pitressin tannate and pituitrin.

On examination at the Mayo Clinic the right eye was found to be blind, and the acuity of the left eye was recorded as 2/60. The field of the left eye was restricted to a small nasal isle (Fig. 1). The optic disks appeared to be normal. Roentgenography of the skull showed no evidence of disease. Neurologic examination disclosed no abnormalities. The tentative diagnosis of craniopharyngioma or chiasmal arachnoiditis was suggested, and surgical exploration was advised. During the course of these examinations the patient's vision continued to fail, and for 24 hours prior to operation he was completely blind and his pupils did not react to light.

Right transfrontal craniotomy was performed and a tumor mass was found completely surrounding both optic nerves and the chiasm. The growth was friable, bright red, and was readily removed from the area by suction and gentle teasing with pituitary forceps. The pathologic report was "pinealoma."

Recovery of vision during the patient's postoperative period was remarkable. Within 2 days he could see light, and by the 3rd day could distinguish moving objects. By the 5th day he could read large letters with both eyes. On the 16th day visual acuity was recorded as 6/7 with the right eye and 6/20 with the left eye. The fields of vision showed only a moderate contraction (Fig. 2).

A course of roentgen-ray therapy was administered to the skull as is done in the presence of primary pinealomas. Six weeks after operation a second course of roentgen-ray therapy was administered, the fields of vision were again charted and were found at that time to be normal (Fig. 3). One month later the visual acuity was still normal and roentgenography of the skull showed evidence of calcification and enlargement of the pineal gland.
One year after surgical operation the patient complained of pain in the back and aching in his legs. This was regarded as a result of a metastatic lesion in the spinal cord. Deep roentgen-ray therapy was administered to the entire spinal column. The patient’s vision was still normal. For about a month there was slight abatement in symptoms referable to the spinal cord, and then paraplegia gradually developed in spite of roentgen-ray therapy. The patient died within the next year.

**CONCLUSION**

This case represents some of the usual features of the course of pinealoma, but is unusual in that it furnishes an example of (1) recovery of vision by means of surgery after complete blindness, and (2) maintenance of good vision during the 2 years the patient survived.

**REFERENCES**