CASE REPORT

PAINFUL OPHTHALMOPLEGIA SECONDARY TO A MUCOCELE INVOLVING THE SELLA TURCICA, SUPERIOR ORBITAL FISSURE, AND SPHENOID SINUS

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A case of painful ophthalmoplegia associated with an extensive lesion involving the sella turcica, superior orbital fissure, and sphenoid sinus in a 57-year-old man is reported. Even though nasal and ocular symptoms and signs represent the usual features of sphenoidal mucoceles, extension to the intracranial cavity as seen in this lesion is rare. Surgical exploration via a sublabial, transseptal approach revealed a mucocele of the sphenoid sinus. This case exhibited extensive and aggressive behavior simulating a malignant neoplasm. (*J Natl Med Assoc.* 1992;84:279-280.)

Key words • mucocele • painful ophthalmoplegia • sella turcica

Painful ophthalmoplegia occurs in clinical conditions characterized by pain and a combination of dysfunctions involving the third, fourth, fifth, and sixth cranial nerves.[1] The syndrome is often seen in association with chronic granulomatous disorders involving the anterior cavernous sinus (Tolosa-Hunt syndrome); however, granulomatous conditions involving the orbital apex and superior orbital fissure have been described.[2] This case of painful ophthalmoplegia is presented because of its interesting computerized tomography findings and its excellent outcome following surgical drainage and intravenous antibiotic therapy, as well as to illustrate that other entities must be considered.

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CASE REPORT

A 57-year-old man was referred with a 5-week history of frontal headache, face pain, and diplopia. Neurologic examination revealed a painful left ophthalmoplegia and second division of the left trigeminal nerve.

A computerized axial and coronal tomographic scan of the head with and without contrast revealed a large soft tissue mass with the epicenter in the sphenoid sinus and invasion of the choanal region of the nasopharynx, sella turcica, and left superior orbital fissure with bony erosion (Figures 1 and 2). Routine hematologic and biochemical investigations including erythrocyte sedimentation rate revealed no abnormalities.

A sublabial, transseptal approach was taken to explore the sphenoid sinus and obtain a biopsy. Surgical exploration revealed a large quantity of creamy material that appeared to be pus. The cyst wall was excised, and the sphenoid sinus was drained. This material was sent for culture, and the patient was treated with intravenous cloxacillin. Gram's stain revealed pus cells but no bacterial organisms were identified. Culture of this material did not reveal any growth of organisms.

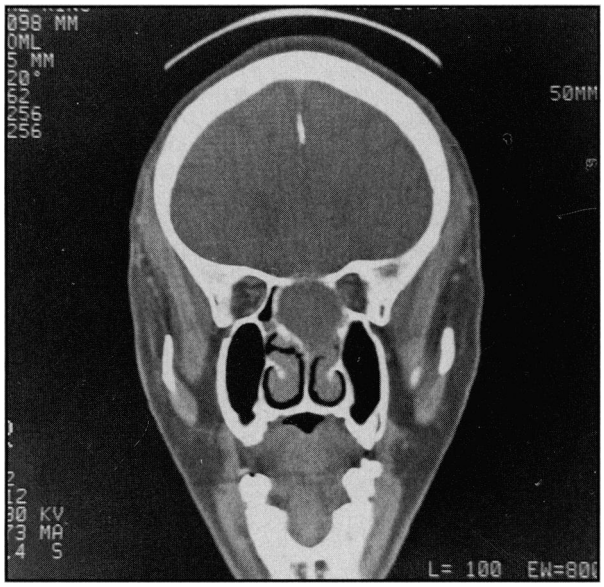

Figure 1. Computerized axial scan of the head, with contrast, showing a large tissue mass with the epicenter in the sphenoid sinus.

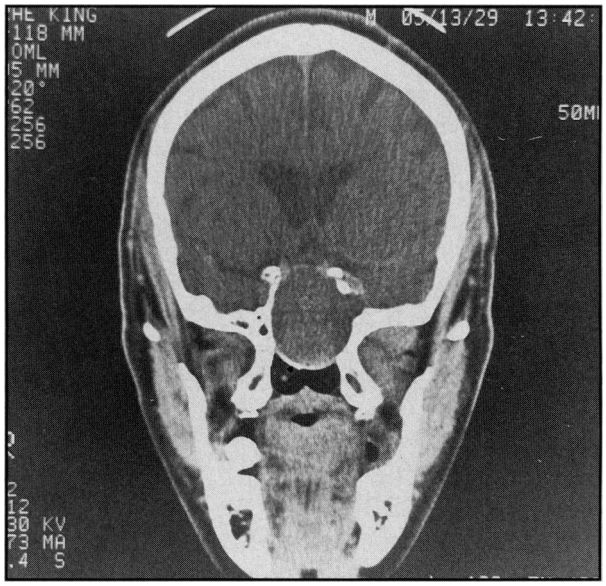

Figure 2. Coronal tomographic scan of the same area shown in Figure 1.

Postoperative Course

The patient made an uneventful recovery following 2 weeks of intravenous and 4 weeks of oral cloxacillin. Follow-up neurologic examination revealed full range of extraocular movements, and the patient was free of pain.

DISCUSSION

Painful ophthalmoplegia is a neurologic disorder affecting the third, fourth, fifth, and sixth cranial nerves. Prompt and meticulous management is required once the diagnosis is made.

Orbital infection and tumors, granulomatous conditions, vascular lesions involving the internal carotid artery, and cavernous sinus and tumors of the adjacent sinuses are usually responsible for this syndrome.[3]

As reported in the literature, patients with this disorder often harbor a chronic granulomatous condition and should be evaluated for sarcoid, tuberculosis, syphilis, and fungal and collagen vascular diseases.[4] An elevated sedimentation rate is usually the only abnormal finding, and a prompt response can usually be achieved with steroid and appropriate antibiotic therapy. In this case, the sedimentation rate was normal and the extensive character and appearance of the lesion pointed toward a diagnosis of a neoplasm, especially a carcinoma. Even though mucoceles are known to occur in the sphenoid sinus, extension to the intracranial cavity is rare.[5] Lesions involving the sphenoid sinus gradually increase in size and have been reported to affect cranial nerves two through six.[6] In a report by Nugent,[7] headache, visual loss, diplopia, exophthalmos, and prolonged nasal obstruction were described. In the patient reported here, nasal obstruction, exophthalmos, and impairment of visual acuity were notably absent. This case serves to illustrate the point that tissue diagnosis is necessary early in the management of such extensive lesions, thereby avoiding delay and its devastating sequelae.

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