A Rare Case Report on Unilateral Optic Nerve Sheath Meningioma

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INTRODUCTION

Optic nerve sheath meningiomas (ONSM) are slow growing benign tumors, which typically originate from the arachnoid cap cells around the intraorbital portion of the optic nerve and are intimately associated with the optic nerve. The natural history of primary ONSM involves indolent growth during a period of many years. Intracranial extension is rare. ONSM is confined to the dura matter and hence it often appears as a well-defined, tubular thickening of the optic nerve on computed tomography (CT) or magnetic resonance imaging. Definitive treatment of ONSMs is challenging, however, because of the lesions intimate circumferential relationship with the optic nerve and its vascular supply. Surgical excision has almost always resulted in post-operative blindness in the affected eye and is reserved for patients with intra cranial extension of tumor.1

CASE REPORT

A 55-year-old south Indian female presented to ophthalmology outpatient Department complaining of gradual decrease in vision in the left eye and drooping of upper eyelid since 5 years with a history of mild intermittent headache. During this period, she has been treated elsewhere with different topical medications, details not provided. She did not give any previous history of eye pain, eye trauma or projectile vomiting. Patient is not a known diabetic or hypertensive.

Patient underwent detailed examination, ocular, medical and neurological from which the following observations were made. The best-corrected visual acuity was a perception of light in left eye without showing any improvement. The pupillary reaction was sluggish to direct light in left eye. Extraocular eye movements were restricted in all directions (Figure 1). Anterior segment examination under slit lamp was normal. The fundoscopic examination showed optic atrophy with retino-choroidal collaterals in the left eye, and the right eye optic disc showed mild temporal pallor (Figure 2). Contrast-enhanced CT (CECT) brain study revealed evidence of hyper-dense mass lesion showing foci of calcification arising from left optic nerve sheath, suggestive of optic nerve sheath meningioma (Figure 3). The tumor had an intracranial extension along the
optic nerve, so the case was referred to neuro center for intracranial approach for excising the tumor, as the optic nerve showed signs of atrophy. Though the tumor is benign it is necessary to approach it intracranial and excise, since it may produce complications of space occupying lesions.

DISCUSSION

ONSM are rare benign tumors of the optic nerve. 60-70% of cases occur in middle age females, and is more common in older adults (mean age 44.7 years). It is also seen in children, but this is rare. The tumors grow from cells that surround the optic nerve, and as the tumor grows, it compresses the optic nerve. This causes loss of vision in the affected eye. Rarely, it may affect both eyes at the same time.

It is typically a slow growing tumor and has never been reported to cause death. However, there is concern that the tumor can grow into the brain and cause other types of neurological damage. In some patients, the tumor grows so slowly that the treatment is not necessary.2-5

CONCLUSION

Often meningiomas show homogenous and well-defined mass on CECT. CECT is the procedure of choice for diagnosis of ONSM. The findings in optic nerve sheath meningioma in this case are quite typical. The benign non-invading, well-defined growth pattern, the clinical manifestation strongly suggests the possibility of meningioma. As the patient’s age is relatively advanced, aggressive procedure such as biopsy was considered unnecessary.
### REFERENCES


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