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Pituatory Tumor Mimicking Retrobulbar Neuritis

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Abstract

A twenty nine year old male presented with a history of diminition of vision in the left eye for four months. There were no other symptoms. Magnetic Resonance Imaging (MRI) of brain revealed pituatory tumor. Unilateral loss of vision was the presenting signs in this case diagnosis.

Keywords: Intracranial; Tumor; Loss of Vision

Abbreviations: MRI: Magnetic Resonance Imaging.

Introduction

Intracranial tumors are a leading cause of morbidity and mortality in patients. Clinical features are caused by mass effect, raised intracranial pressure or influence of hormones. Eye signs and symptoms occur as an initial presentation in up to fifty percent of patients diagnosed with primary brain tumors in adults [1].

Case

A twenty nine year old male presented with a history of painless, progressive diminution of vision in the left eye for four months. There was no other significant perinatal, medical, surgical, family and traumatic or drug abuse history. Ocular examination was carried out and his visual acuity was 6/6 in the right eye and hand movements close to face in the left eye. He was diagnosed and treated as a case of retro bulbar neuritis in the left eye elsewhere but no investigations were carried out (as per the records brought by him). On ocular examination, his pupillary reactions, ocular movements, intraocular pressure and fundus were normal bilaterally.

MRI of the brain was done which revealed a 2cm by 2cm by 3 cm peripherally enhancing cystic lesion in the sella and suprasellar region not separately differentiated from the pituitary gland and possibilities of pituitary adenoma, craniopharyngioma and rathke's cleft cyst were given. Laboratory workup of the patient was not performed and the patient was referred to a neurosurgical and endocrinologist opinions at a higher center. We are awaiting a follow-up from him.

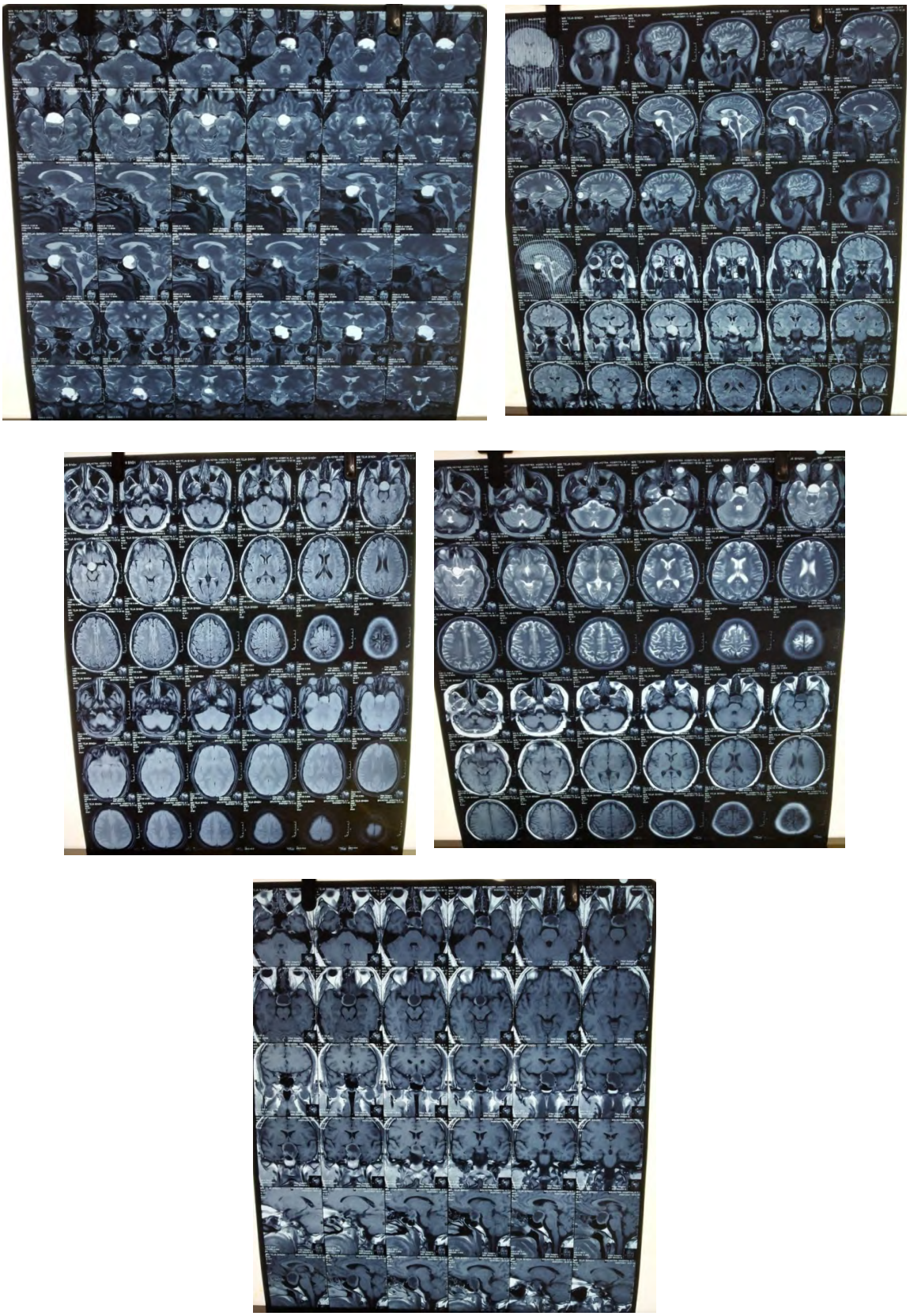

Figure 1A-1E: An MRI of the brain.

Discussion

Ophthalmic signs and symptoms in brain tumors include visual loss, diplopia, nerve palsy, pupillary abnormalities, and optic nerve head defects [2]. Pituitary diseases are an important cause of compression of optic chiasma leading to visual disturbances. Pituitary adenomas, craniopharyngiomas, meningioma's, and pituitary apoplexy are a few important examples. Visual field defects may be one of the first signs of developing pituitary tumors [3]. The ophthalmic presenting symptoms of pituitary enlargement also depend upon the compression of the neighboring structures. The pituitary fossa is bounded superiorly by optic chiasm, cavernous sinuses on both sides, and sphenoid sinus inferiorly. The visual signs could be due to raised intracranial pressure, compression of the structures in the visual pathway, and the involvement of cranial nerves in the cavernous sinus [4]. Neurosurgery is the treatment of choice for nonfunctioning pituitary adenomas [5] while functioning pituitary adenomas that secrete prolactin usually require dopamine-agonist such as bromocriptine. Surgical resection, usually with the trans-sphenoidal approach, should be considered for pituitary tumors that secrete prolactin and show rapid deterioration in visual function. When medical and surgical treatments are unsuccessful, radiotherapy may be used post-operatively [6]. Retro bulbar optic neuritis is a characterized by normal optic disc with loss of vision and a relative afferent pupillary defect in the affected eye [7].

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