
SHORT COMMUNICATION

Case report

Positive tensilon test and intracranial tumor: A case report

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PURPOSE. *To report a case of intracranial tumor in a patient with positive tensilon test.*

METHODS. *Interventional case report. A 19-year-old male presented with left 6th nerve palsy and had a tensilon test, which was highly positive and was diagnosed as having myasthenia gravis.*

RESULTS. *The neurologist scanned the patient, which showed an intracranial tumor in the floor of the temporal fossa on the left side. The patient had surgery and a schwannoma was removed. The VIth nerve palsy did not improve upto two years after surgery.*

CONCLUSIONS. *A patient with a positive tensilon test can also have an associated intracranial tumor. (Eur J Ophthalmol 2003; 13: 590-2)*

KEY WORDS. *Tensilon test, Pseudomyasthenia, False positive*

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Case report

A 19-year-old male presented with a two-week history of diplopia in left gaze, which had stayed stable over that period. There was no diplopia in the primary position of gaze. Past ocular history included a slight left ptosis noted three years before which was non-progressive. There was no significant systemic history and no history of trauma.

On ocular examination he had an unaided visual acuity of 6/4 in the right and left eye. Eye examination was normal with an intraocular pressure of 21 mm of mercury in each eye not increasing on elevation. On orthoptic examination there was a small face turn to the left. Cover test showed a moderate esophoria with delayed recovery. Prism cover test was 14 prism diopters esophoria for near and 16-prism diopters esophoria at 6 meters. There was a -3 restriction of the left eye in abduction and -1 underaction on elevation with over-

action of the right eye. He had a V pattern with 1mm of ptosis of the left eye. Diplopia was present in all levopositions and was most pronounced in the horizontal meridian. Hess chart (Fig. 1) showed a left lateral rectus underaction with overaction of the contralateral medial rectus. A differential diagnosis of left VIth nerve or myasthenia gravis was considered. Tensilon test was performed with monitoring with Hess chart. It was very strongly positive with some improvement with a test dose of 2 mg of edrophonium and a nearly complete resolution of the abduction of the left eye after administering 8 mg of edrophonium.

A diagnosis of ocular myasthenia gravis was made and the patient was referred to the neurologist and started on pyridostigmine 30 mg once a day. Further investigations included acetylcholine receptor antibodies, chest x-ray, CT scan of the chest and repeat tensilon test, which were negative. Electromyography of the limb muscles was normal. In view of the neg-

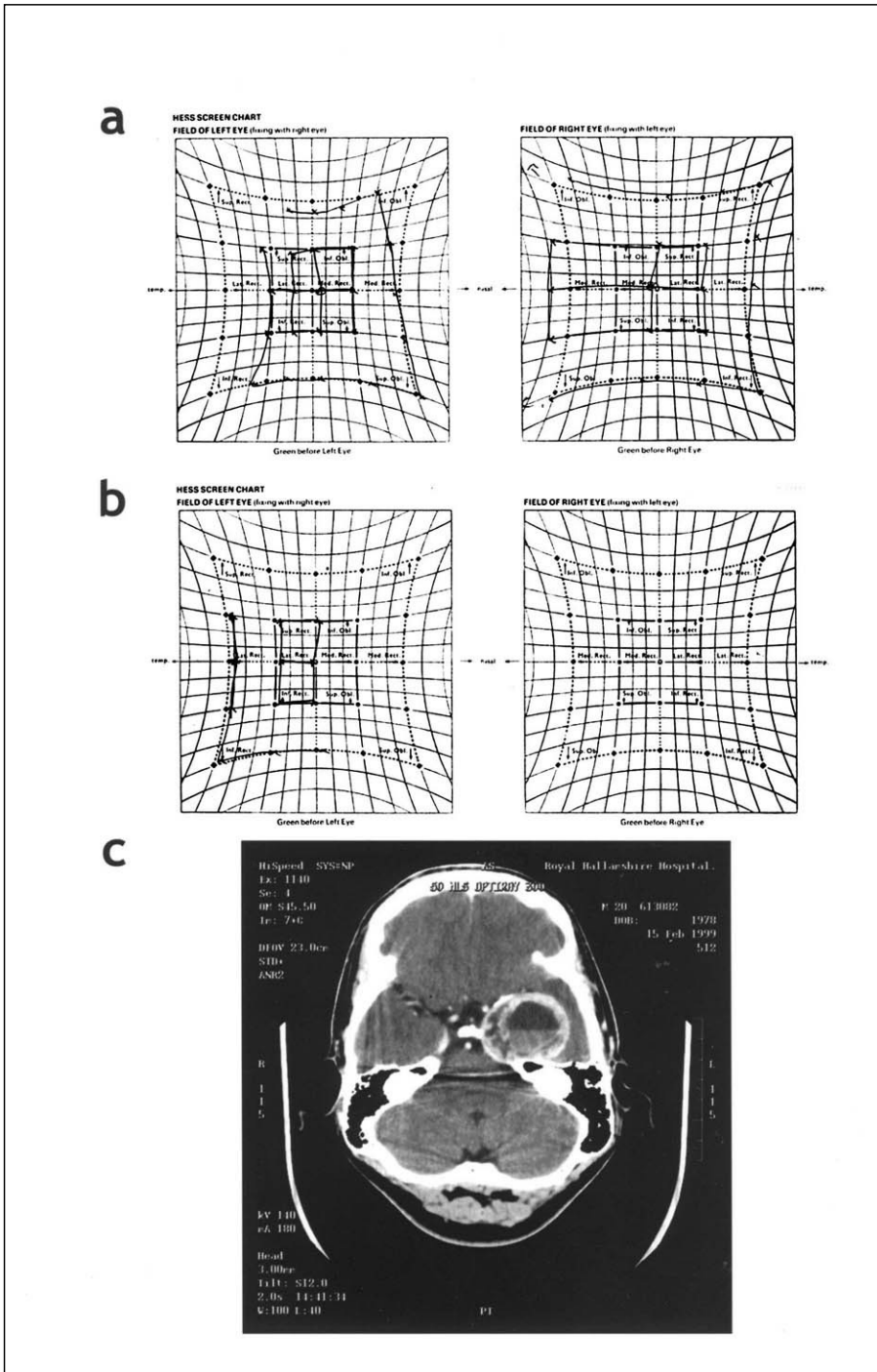


Fig. 1 - a) Pretension Hess chart showing underaction of the left lateral rectus muscle. **b)** Post tension record of full recovery of the left lateral rectus. **c)** CT scan of head showing the intracranial tumor.

active tests and because of the one involvement of one cranial nerve a CT scan of the head was arranged which showed a large mass arising from the floor of the temporal fossa on the left side. The mass had an enhancing capsule with a cystic center and levels of

fluid. This was confirmed on MRI scan and Magnetic resonance angiography showed the tumor was in close proximity to the middle cerebral complex. Full carotid artery angiography showed blood supply coming from the internal carotid artery. A diagnosis of intracranial

tumor possibly degenerate meningioma was made and an exploratory craniotomy was arranged. The pyridostigmine was stopped and the patient was referred to neurosurgery.

On craniotomy a schwannoma of the trigeminal nerve was isolated and removed. He was discharged after three weeks and was well oriented to time place and person. He has been followed up for two years now. His VIth nerve palsy has not recovered but he is coping fine with a head turn to the left. Also he has a restricted area of diminished sensation around the corner of the mouth on the left hand side. There is no evidence of recurrence of the tumor and the plan is to follow him for a total of ten years.

DISCUSSION

Tensilon test is an important diagnostic test for myasthenia gravis (1). False positive edrophonium test has been reported previously in patients with brainstem glioma (2), myositis (3) and meningioma (4, 5) but no reports have documented the response with Hess charts. Increased excitability of the terminals (6) or direct stimulation of the muscles is believed to cause the false positive response.

In our patient the absence of any other symptoms combined with a strongly positive tensilon test was highly suggestive of myasthenia gravis. Straube A, Witt TN (7) have recommended further investigations when there is involvement of muscles supplied by one cranial nerve or an unusual clinical pattern. A involvement of only the lateral rectus muscle combined with a negative second tensilon test prompted the neurologist to undertake further investigations which helped in establishing the diagnosis.

We recommend that even though a positive tensilon test is strongly suggestive of myasthenia, a possibility of false positive test and further investigations should be considered.

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