

CASE REPORT

CLIVUS METASTASIS PRESENTING AS ISOLATED ABDUCENS NERVE PALSY – CASE REPORT

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ABSTRACT: A 50 year old lady with past history of breast carcinoma surgery presented with progressive diplopia of 15 days duration. Examination revealed paresis of right abducens nerve. Though risk factor like Hypertension was present, patient was ordered MRI which showed Clivus and vertebral metastatic foci highly suggestive of metastasis from breast carcinoma. The patient was referred for radiation therapy. Hence, meticulous neuroophthalmic examination and management is necessary to rule out localised metastasis causing isolated abducens nerve palsy.

KEYWORDS: Abducens nerve, Clivus, Breast carcinoma, Diplopia, Metastasis.

CASE SUMMARY: A 50 year old female presented with sudden onset double vision of 15 days duration. Two years back she had been diagnosed with stage-3 ductal carcinoma of breast and got operated for the same. The double vision was progressive and more so when she attempts to look towards right side. Her visual acuity was normal, slit lamp examination and fundus findings were within normal limits. Hirschberg test revealed esodeviation of right eye around 30° (Fig1). Diplopia charting showed crossed diplopia and Hess screening confirmed the diagnosis of Right lateral rectus paresis.

Though the patient had vasculopathic risk factors like Hypertension (150/100mmHg), MRI brain was ordered to identify the cause. The MRI scan showed altered signal intensities in Clivus, Atlas and Axis showing hypointense on T1 images with compression fracture in body of Axis vertebrae suggestive of metastasis (Fig2). On neurologic consultation, metastasis from breast carcinoma was highly suspected. She was then referred to radiation oncology service for whole brain radiation therapy.

DISCUSSION: Most isolated abducens nerve palsy in patients over 50yrs of age is ischemic in nature. However, there are other causes that can mimic abducens nerve palsy which require aggressive diagnosis and management. Neoplasm is known to be one of the causes of abducens nerve palsy. It can be due to a tumor in situ¹ or by distant metastasis². Metastasis from carcinoma of prostate³, Kidney⁴, Colon⁵, Tonsil⁶, Liver⁷ and Lungs⁸ have been reported in literature which caused myriad of lesions like isolated and multiple cranial nerve palsies.

Reyes KB et al⁹ reported abducens nerve palsy secondary to isolated brainstem metastasis from a breast cancer. MRI in that case showed a pontine mass lesion causing palsy of 6th nerve. A similar case was reported by Sans Beom Han¹⁰ where a metastatic mass in the facial colliculus of lower pons involving abducens nucleus resulting in Gaze palsy.

In our case, MRI which was done 1month back before the onset of diplopia was normal. But the strong suspicion made us to repeat MRI which showed localised metastatic lesions. Though microvascular ischemia due to hypertension could be cause the for 6th nerve palsy in our case,

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location of metastatic lesions on MRI and proximity of abducens nerve favoured diagnosis of nerve palsy of tumor origin.

Neoplasm is known to be one of the cause of isolated Abducens nerve palsy. However, to best of our knowledge, this is the first case of 'isolated 6th nerve palsy of metastatic origin' reporting from India. Thorough history-taking and neuro-ophthalmic evaluation would help physician establishing differentials, which could not only be sight-saving but life-saving as well.

TO CONCLUDE: A localized metastasis to abducens nerve can occur causing diplopia in patient with history of breast cancer.

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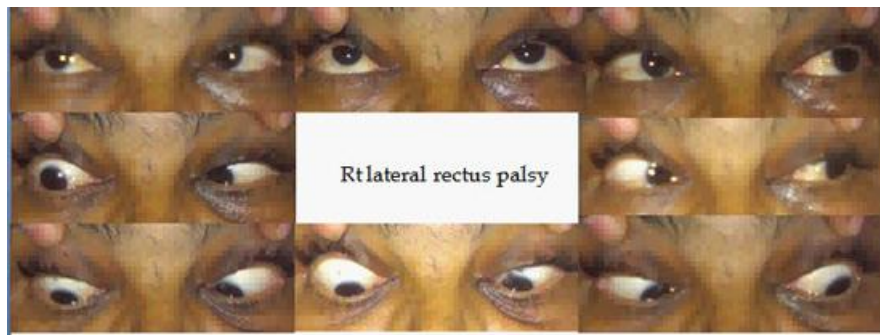


Fig-1



Fig-2

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