Secondary optic atrophy due to metastasis in brain due to lung cancer
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Abstract: Secondary optic atrophy can be due to metastatic lesion in the brain. High index of suspicion is necessary in secondary optic atrophy as the lesions can mimic various benign conditions like tuberculoma. We are presenting a case of secondary optic atrophy due to bronchogenic carcinoma where initially the lesion resembled tuberculoma closely.

Keyword: Secondary optic atrophy, metastasis, bronchogenic carcinoma.

Introduction: Lung cancer is known as bronchogenic carcinoma. They are classified into two types: small cell lung cancer and non small cell lung cancer. Small cell lung cancers comprise of 20% of lung cancer and are the most aggressive and rapidly growing of all lung cancers. Small cell lung cancer metastasis rapidly to many sites within the body and discovered after they have spread extensively. Non small cell lung cancer are the most common lung cancer accounting for 80% of the lung cancers. Metastasis to the brain is the most feared complication of the systemic cancer. Approximately 40% of the intracranial neoplasms are metastatic.3 We are presenting a case of intracranial metastasis leading to secondary optic atrophy due to lung cancer Case report: 28 year old lady who was a house wife came to us with chief complaints of headache for one and half years and loss of vision in both eyes for 6 months duration. She gave history of left sided weakness of the upper and lower limb for the past 3 months. Patients had reports done two years showing Mantoux positive and CT scan showing elongated cystic lesion with ring enhancement in the right peritrigonal region. A provisional diagnosis of tuberculoma was made and patient was started on anti-tuberculous drug empirically by a previous ophthalmologist. Patient finished six months course of ATT. Patient felt there was some amelioration of symptoms following treatment. Headache had resolved.on examination patient was poorly nourished. Vitals were stable. Left sided hemiparesis was noted. Ocular examination of the patient showed visual acuity of no perception of light in both the eyes and pupils were sluggishly reacting to light

Fundus examination showed pale disc with mild oedema had tortuosity of vessels in both the eyes. Repeat CT scan showed right fronto –parietal mixed density lesion of 5cm×3.86 cm. peritrigonal parenchymal oedema with midline shift and papilloedema. CT chest showed mixed density in the left upper lobe (8.2 ×5.08 cm). It was suggestive of bronchogenic carcinoma. Patient was then referred to a neurosurgeon for further management.

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**Discussion:**

Secondaries are the most common intracranial tumours in adults\(^1\). Brain metastasis is seen in 20-40\% of the patients\(^2\) with cancer. Patient with brain metastasis presents with headache and seizures as the main symptoms. Other presenting symptoms are mental status alteration, motor and cognitive disturbances and visual disturbances\(^3\). Laboratory for these patients include complete hemogram, liver function tests, CT, MRI and chest X-Ray. Cerebral metastasis is an important differential diagnosis that should be considered in case of solitary lesions in the brain with ring enhancements. MRI is particularly recommended for patients with apparently single metastasis. It detects small brain metastasis particularly lesions of the posterior fossa\(^4\). Treatment options for metastatic disease are mainly palliative. Patient of brain metastasis have mean survival for 3 months without treatment. With treatment survival can be improved, but still the mean age of survival is less than 3 years.

**Reference:**


