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# Bilateral Lateral Geniculate Body Involvement Causing Visual Impairment in a Patient with Metastatic Carcinoma of Lung

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**Abstract**

Bilateral lateral geniculate body lesion leading to visual impairment is uncommon. A number of causes have been described. The involvement secondary to metastatic malignant nodules has not been reported. Our case illustrated visual impairment with no papilloedema secondary to bilateral geniculate body involvement by metastatic nodules. Clinicians are reminded of this presentation of brain metastasis and the goal of visual preservation to be explored.

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## INTRODUCTION

A 48-year-old gentleman was admitted to internal medicine unit with a 3-week history of progressive bilateral blurring of vision. He also had weight loss and cough. He was an ex-smoker of 20 years. On examination his Glasgow Coma Scale was 15. There was no slurred speech. Ophthalmologic examination showed visual acuity in the right eye of light perception, and finger counting in the left eye. No ophthalmoplegia was detected. Intraocular pressure was normal. There was no papilloedema. Limb power was normal for both upper and lower limbs. There was no sensory deficit. His gait was normal. He could walk unaided though assistance due to visual impairment was required. Chest X-

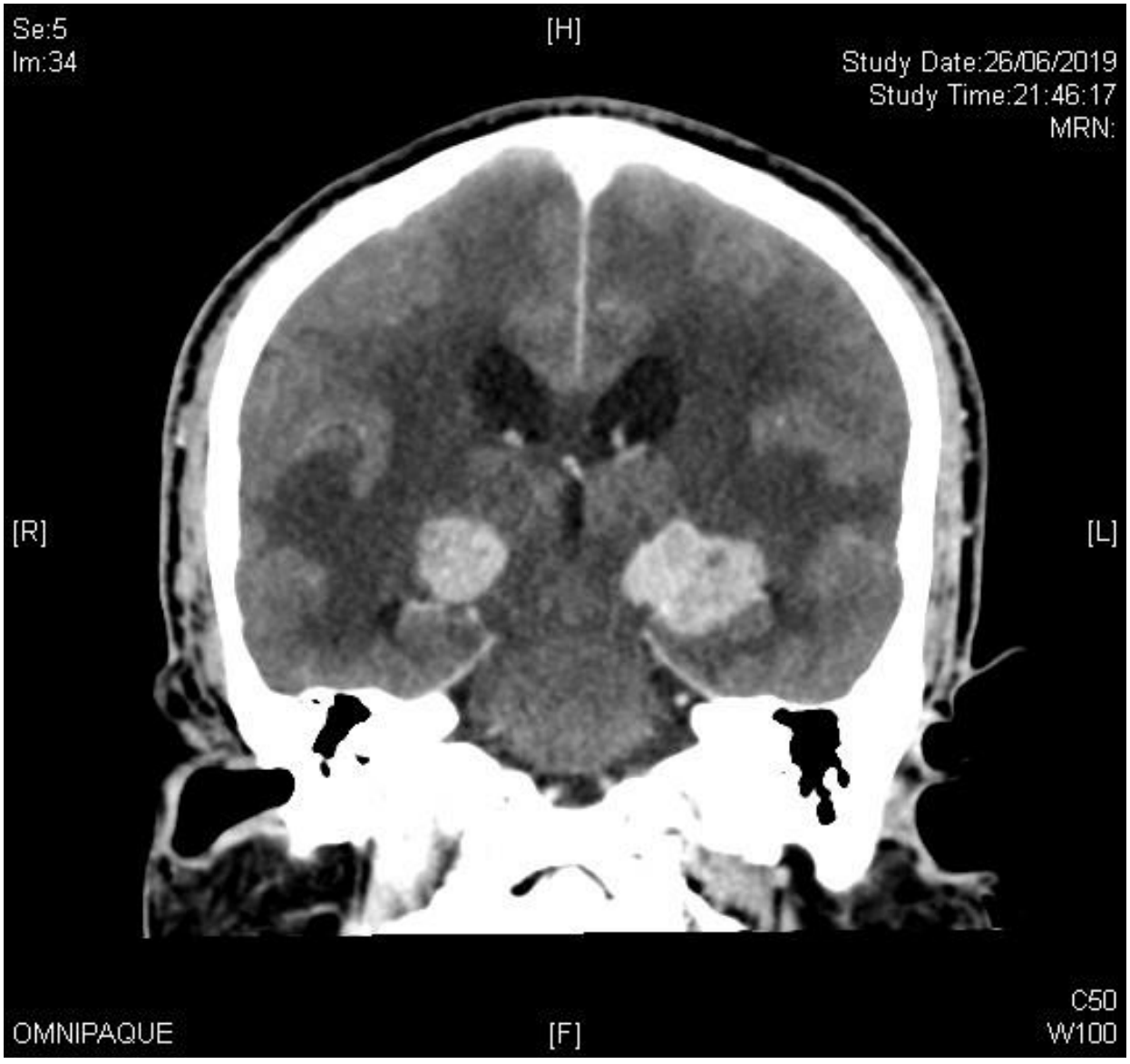


**Figure 1.** Contrast computer tomography of brain showed bilateral lateral geniculate body involvement of metastatic nodules with associated vasogenic oedema.

ray showed a right paratracheal mass. Computer tomography of thorax revealed a mass measuring 3.1cm by 3.6cm by 4.6 cm at right paratracheal region suggestive of an enlarged mediastinal lymph node. The level of carcinoembryonic antigen was raised to 161 micrograms per litre. Endobronchial ultrasound-guided transbronchial needle aspiration was performed and histological finding was consistent with adenocarcinoma of lung. Computer tomography of brain revealed involvement of bilateral lateral geniculate bodies due to metastatic nodules. (Figure 1)

There was prominent associated vasogenic oedema. Dexamethasone treatment and chemotherapy were initiated. However, his visual acuity remained static.

Bilateral lateral geniculate body involvement leading to visual impairment is uncommon. It was first reported in 1933 (1). Myelinolysis, infective, vascular and inflammatory causes have been described (2, 3, 4, 5). Visual impairment in patients with metastatic carcinoma of lung is more commonly seen in unilateral lesion along optic tract or in occipital lobe. Our case is the first reported case of bilateral visual impairment secondary to metastatic nodule involvement of bilateral lateral geniculate bodies. The absence of papilloedema and normal intraocular pressure in bilateral visual impairment may provide a clue to bilateral geniculate body involvement. Brain imaging is warranted in cases presenting with sudden onset of bilateral visual impairment. The poor response to steroid and chemotherapy may provide a topic for further research.

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