Bronchogenic carcinoma presented as Foville’s syndrome

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DESCRIPTION
A 44-year-old man, a chronic smoker, enjoyed good past health. He was admitted for insidious onset of diplopia, dizziness and right-sided weakness for 20 days. He denied any fever, cough, weight loss or headache. Physical examination showed conjugate left gaze palsy, right beating nystagmus on right gaze (video 1), lower motor neuron type left facial weakness and mild right hemiparesis (Medical Research Council, MRC, grading 4+/5). MRI of the brain revealed a nodular lesion with contrast enhancement in left inferior posterior pons. Another nodular lesion was seen in the left parietal lobe (figure 1A, B). Positron emission tomography scan showed a hypermetabolic irregular lesion at the posterior apical region of left upper lobe, which was highly suggestive of malignancy (figure 2). The pontine lesions showed a hypometabolic centre with peripheral isometabolic rim and the left parietal lesion was isometabolic. Ultrasonography-guided lung biopsy revealed non-small cell carcinoma. The patient was referred to the oncology department and was given chemotherapy as well as whole brain radiotherapy.

Foville’s syndrome is a rare inferior medial pontine syndrome first described by French neurologist Achille Foville in 1858.1 The ipsilateral conjugate palsy is due to involvement of the abducens nucleus or parapontine reticular formation, the ipsilateral lower motor neuron type facial weakness is related to involvement of seventh nerve nucleus or fascicle and the contralateral hemiparesis is due to involvement of the uncrossed corticospinal tracts.2 It has been reported in patients with stroke2

Video 1 Conjugate left gaze palsy and right beating nystagmus on right gaze.

Figure 1 (A) T1-weighted (T1W) MRI with contrast showed a nodular lesion with contrast enhancement in left inferior posterior pons (arrow). (B) T1W MRI with contrast showed another nodular lesion with contrast enhancement in the left parietal lobe (arrow).
and tuberculosis. To the best of our knowledge, this is the first reported case of Foville’s syndrome due to bronchogenic carcinoma.

Learning points

▸ Foville’s syndrome is a rare brainstem syndrome.
▸ The ipsilateral conjugate palsy is due to involvement of the abducens nucleus or parapontine reticular formation, the ipsilateral lower motor neuron type facial weakness is related to involvement of seventh nerve nucleus or fascicle and the contralateral hemiparesis is due to involvement of the uncrossed corticospinal tracts.
▸ This is the first reported case of Foville’s syndrome due to bronchogenic carcinoma.

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REFERENCES