

## Occipital condyle syndrome as the first sign of skull metastasis from lung cancer

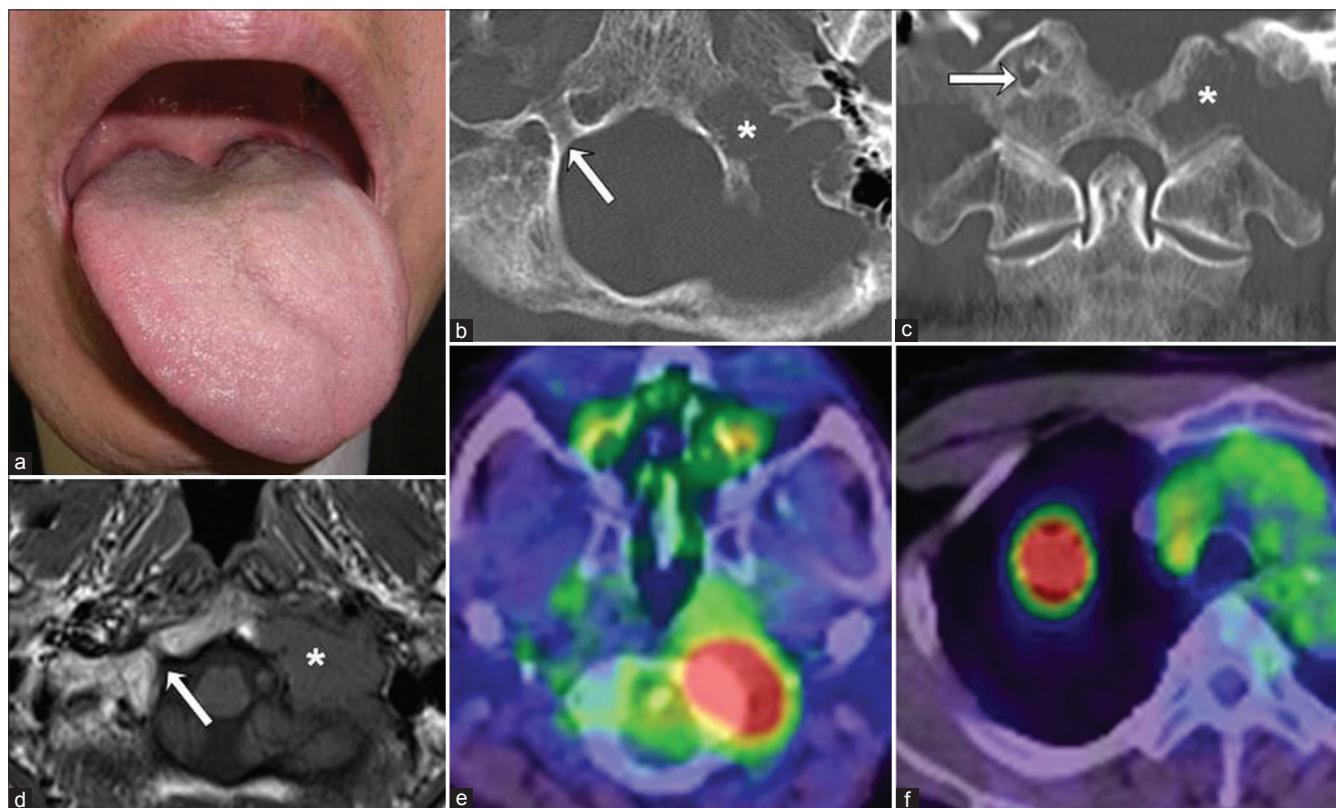
Sir,

Occipital condyle syndrome (OCS) consists of unilateral occipital region pain associated with hypoglossal nerve palsy, and can be the first presentation of malignancy.<sup>[1-5]</sup> We herein present an extremely rare case of OCS which occurred as the first sign of skull metastasis from lung cancer.

A 64-year-old male presented with a 2-week history of dysarthria and left-sided headache. On examination, there was marked tenderness to palpitation over the left occipital region, and the tongue deviated to the left when protruded [Figure 1a]. A CT scan showed a space-occupying osteoclastic lesion, affecting the left occipital condyle and the hypoglossal canal [Figure 1b and c]. The lesion demonstrated a hypointense signal on T1-weighted images [Figure 1d]. A PET-CT scan showed high uptake

in the occipital bone and the right upper lobe of the lung [Figure 1e and f]. A transbronchial biopsy revealed adenocarcinoma. Following the diagnosis of skull metastasis from the lung cancer, he was treated with opioid analgesics and local radiation therapy (30 Gy in 10 fractions). The pain was successfully relieved, but his hypoglossal nerve dysfunction did not improve. He received palliative systemic chemotherapy for lung cancer, and eventually died 9 months after the onset.

Skull base metastatic cancers are often silent. Although rare, cranial nerve palsies are associated with these lesions. OCS can often be caused by prostate, breast, or rectal cancers. To the best of our knowledge, the present patient is the third case of OCS caused by skull metastasis from lung cancer.<sup>[1,2]</sup> The overall survival from the time of diagnosis of skull metastasis is 5 months.<sup>[5]</sup> Early detection and early palliative therapy are important to improve the patient's quality of life. Routine radiological studies without consideration for OCS may lead to the oversight of these lesions. Therefore, radiological evaluations with special attention to the occipital condyles should be considered. Radiotherapy is used to treat most cases.<sup>[1-5]</sup> The pain can be successfully controlled with radiotherapy if it is delivered early to the patients with OCS caused by skull metastasis.<sup>[1,3]</sup> Only a minority of patients with



**Figure 1:** (a) Left sided hypoglossal nerve palsy; (b-d) CT scans and MR images showing a space-occupying osteoclastic lesion (asterisk) affecting the left occipital condyle and hypoglossal canal (arrows, right hypoglossal canal); and (e, f) PET-CT scans showing high uptake in the occipital bone and the right upper lobe of the lung

skull metastasis are candidates for surgical resection; however, in patients without known systemic cancer, a biopsy is useful to establish the diagnosis because OCS is not always secondary to malignant diseases.<sup>[2,5]</sup>

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### Conflicts of interest

There are no conflicts of interest.

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