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Teaching NeuroImages: Isolated bilateral trigeminal nerve palsy

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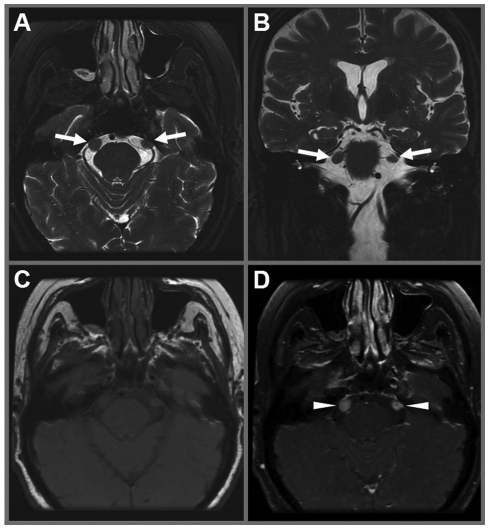
Figure 1 Patient with bilateral trigeminal nerve palsy

The patient was unable to close his mouth. Neurologic examination revealed bilateral trigeminal nerve involvement.

A 73-year-old man with a history of non-Hodgkin lymphoma (NHL) presented 6 months after systemic remission was achieved with a painless mandible drop (figure 1), weakness of masseters and pterygoids, loss of corneal reflex, and impaired facial sensation. Brain MRI (figure 2) demonstrated gadolinium enhancement of both trigeminal nerves, and CSF analysis was compatible with NHL recurrence.[1] No other evidence of systemic disease progression was found. The patient experienced partial resolution of his symptoms and signs after administration of intrathecal methotrexate and systemic chemotherapy.

CSF invasion of malignant cells is the most likely mechanism of isolated NHL recurrence in the CNS.[2]

Figure 2 MRI of the patient



Axial (A) and coronal (B) T2 MRI demonstrating enlargement of both trigeminal nerves (arrows). Axial T1-weighted (C) and postgadolinium images (D) demonstrating gadolinium enhancement of both trigeminal nerves (arrowheads).

However, the biologic mechanism underlying the confined cranial nerve infiltration is still poorly understood, although a neurotropic nature of malignant cells has been hypothesized.[3]

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