Ipsilateral lingual paresis due to pontine infarct

Figure | Ipsilateral lingual paresis and contralateral facial paresis due to isolated pontine infarct



(A) Tongue shifted to the right side. The left nasolabial fold was shallow and the left corner of the mouth shifted downward. Axial (B) and coronal views (C) of fluid-attenuated inversion recovery imaging showed a hyperintensity signal lesion in the right rostral pons.

A 47-year-old hypertensive man developed dysarthria suddenly. Examination revealed left hemiparesis and right hypoglossal nerve paresis without lingual atrophy or fasciculations (figure, A). A tongue EMG was normal. Brain MRI displayed an acute infarct in the right rostral pons (figure, B and C). The motor topography in the basis pontis is consistent with the rostral and medial localization of articulation. Cortico-hypoglossal projections usually cross at the pontomedullary junction whereas the uncrossed projections pass laterally in the basis pontis. Damage to those uncrossed fibers may cause ipsilateral supranuclear lingual paresis. The present radiologic findings support the possibility of aberrant cortico-hypoglossal projections.

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