Hemi-aguesia as an Initial Presentation of Demyelinating Disease in an Adolescent Patient. Case report

J Crawford

Citation

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Abstract

The gustatory pathways are complex and involve numerous afferents from cranial nerves, brainstem nuclei, thalami, and subcortical structures. A case of a 14- year old girl with hemiaguesia as an initial presentation of demyelinating disease is presented along with neuroradiographic correlates.

CASE REPORT

A 14-year old previously healthy female presented following a 2-week history of altered taste and tongue tingling. On neurological examination, the patient reported absent taste to sweet, sour, and bitter on the right half of her tongue with normal sensation. The remainder of her cranial nerve examination was within normal limits. On motor examination she complained of intermittent paresthesias of her right arm and hand with normal strength and reflexes. The remainder of her neurological examination was normal.

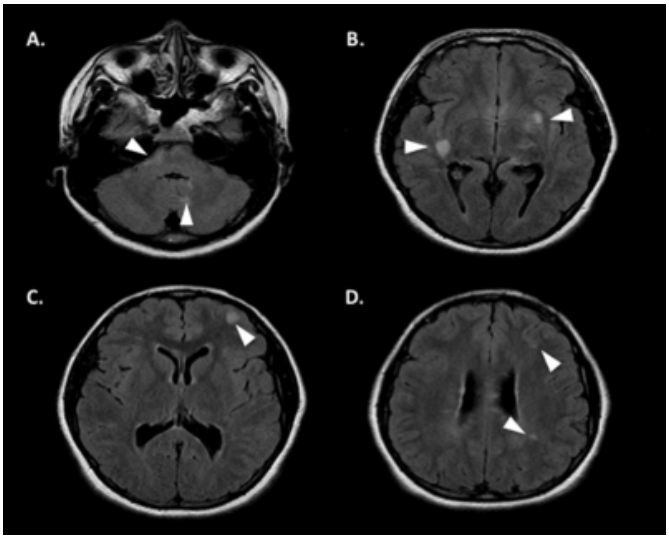
Magnetic resonance imaging of the brain (Figure 1), revealed multiple lesions of FLAIR hyperintensities consistent with demyelinating disease. The patient was started on intravenous methylprednisolone with marked improved of her taste and right crural paresthesias.

Aguesia, or lack of taste, is a complex pathway involving afferents from cranial nerves 7, 9, and 10 who initially synapse in the nucleus solitarius of the dorsal medulla.1 The tractus solitarius then projects dorsalaterally up the brainstem to the ipsilateral ventral posteromedial thalamus. Functional MRI studies following focal electrogustatory stimulation have revealed subcortical activation of the insular cortex, superior temporal lobe, frontal/parietal operculum, and post central gyrus.2 The most likely neuroanatomical correlate responsible for the patient's right-sided hemiaguesia is either ipsilateral involvement of afferent fibers of the tractus solitarius of the dorsolateral pons or peri-insular cortex.

Aguesia has many anatomical correlates and should be considered as a presenting feature of demyelinating disease.

Figure 1

Figure 1. Magnetic Resonance Imaging Findings in a Patient with Right-Sided Hemiaguesia.



Non contrast axial FLAIR sequences reveal abnormal hyperintensities (arrowheads) in the dorsolateral pons/cerebellum (A); right peri-insular cortex/ left putamen-globus pallidus (B), and left frontal (C)/posterior parietal (D) lobes.

References

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Author Information

JR Crawford
Rady Children's Hospital, University of California, San Diego