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Isolated plasty of the Hypoglossal Nerve in a Pediatric Patient

Case Report

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Abstract

This report describes a four-years-old girl, with idiopathic isolated Hipoglosal Nerve (HN) plsaty. She presented unable to move the tongue towards the opposite side for three days. Blowswell, flickers right. No clinic to another level. It does not report previous trauma ororopharyngeal manipulation. Rest of complete neurological examination, including cranial nerve examination, normal. Viral and mycobacterial serologieswas extracted with negative results. Magnetic nuclear resonance was normal.

Each Cranial Nerve (CN) is tested by performance of a specific motor or sensory test. Testing in infants is often by observation for specific movements and responses, and is less reliable. Function of HN or CN XII, in a child or adolescent is tested by asking the patient to stick out their tongue; normally the tongue should remain in the midline. In patients with peripheral lesions of CN XII, the tongue points towards the paretic side. The importance of the HN, is often devalued; because damage to the 12th nerve rarely causes much inconvenience.

HN palsy (HNP) is an uncommon neurological abnormality, especially in the pediatric age. There are few cases of idiopathic isolated unilateral HNP, which should be diagnosed through exclusion.

Keywords:

Craneal nerves exploration; XII craneal nerve

Introduction

Each Cranial Nerve (CN) is tested by performance of a specific motor or sensory test. Testing in infants is often by observation for specific movements and responses, and is less reliable. Function of HN or CN XII, in a child or adolescent is tested by asking the patient to stick out their tongue; normally the tongue should remain in the midline. In patients with peripheral lesions of CN XII, the tongue points towards the paretic side. CN XII dysfunction can also cause fasciculations (slow ripple like movements) in the tongue, and oromotor apraxia. Fasciculationsare best observed with the mouth open and with the tongue kept immobile within the mouth [1].

Clincal case

This report describes a four-years-old girl, withi diopathic isolated Hipoglosal Nerve (HN) plsaty. She presented unable to move the tongue towards the opposite side for three days. Blowswell, flickers right. No clinic to another level. It does not report previous trauma ororopharyngeal manipulation. Limited movement of the tongue to the right

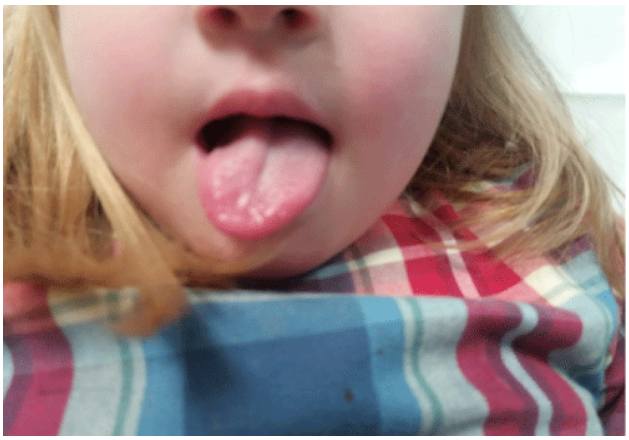

Figure 1: Tongue deflected to the right when it is removed (affected side)) and in the oral cavity to the left (normal side).

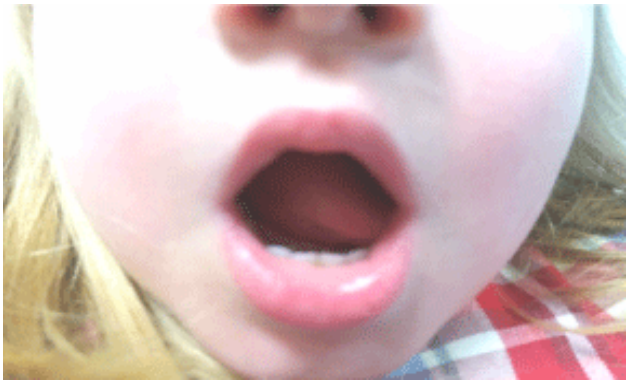

Figure 2: Tongue deflected in the oral cavity to the left (normal side).

side. Tongue deflected to the right when it is removed (affected side) (Figure 1 and 2). Rest of complete neurological examination, including cranial nerve examination, normal. Viral and mycobacterial serologieswas extracted with negative results. Magnetic nuclear resonance was normal. Antiflamatory treatment with oral ibuprofen was prescribed with progressive improvement of the clinic, until its complete disappearance in three weeks. It has not presented recurrences.

Conclusions

The importance of the HN, is often devalued; because damage to the 12th nerverarely causes much inconvenience. The motor composition of CN XII is highly complex and incompletely understood, and the nucleus consists of four topographically distinct subnuclear columns. So isolated HN palsy is rare due to its complex course and close proximity to other cranial nerves and vessels. It also represents a diagnostic challenge in everyday clinical practicedue to its diverse etiologies [2,3].

HN palsy (HNP) is an uncommon neurological abnormality, especially in the pediatric age. Damage to this nerve produces characteristic clinical manifestations, including unilateral atrophy of the tongue musculature. The causes of HNP include known tumors (49%), trauma (12%), stroke (6%), hysteria (6%), surgery (5%), multiplesclerosis (5%), infection (4%), GuillainBarreneuropathy (4%) and idiopathic (3%). There are few cases of idiopathicisolated unilateral HNP, whichshould be diagnosed through exclusion. The few series about this find, emphasizes that isolated HNP does not always herald a grave prognosis and an extensive diagnostic workup in these cases may yield common and potentially treatable etiologies [4].

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