

Dysarthria

is a key symptom of Niemann-Pick type C disease

Dysarthria is characterised by irregular and slurred speech arising from an inability to control the muscles of the mouth. Patients with dysarthria often have difficulty controlling the volume and pitch of their speech. Dysarthria results from a combination of symptoms that are commonly seen in Niemann-Pick type C disease (NP-C): ataxia (loss of voluntary muscle control) and dystonia (abnormal muscle tone resulting in muscle spasms).²⁻⁵

How you might hear dysarthria described

- She finds it hard to speak loudly
- He talks very slowly
- It sounds like she speaks
 He suddenly speaks through her nose
- He sounds like he's drunk
- I often can't understand what she's saying
- loudly for no reason
- ♦ He can't control his pitch
 ♦ She makes gurgly sounds

Listen out!

It looks like he finds it hard to speak

Patient Insight

We couldn't understand why Amelia was struggling to speak properly; when she was six years old, her teachers started to comment on Amelia mumbling her words at school. At first we thought she was just playing, as children do, when she would shout and whisper in the same sentence. As time went on Amelia began to slur some of her words. At that point we were referred by our general practitioner to a neurologist who confirmed Amelia had dysarthria.

Healthcare Professional Insight

Marthria presents in patients as slurred, monotone speech due to difficulty in moving the tongue and muscles around the mouth. Patients will often speak in short sentences and give one word answers. Dysarthria is commonly associated with dysphagia (another symptom of NP-C), which causes difficulty swallowing; therefore, patients may also drool when speaking.

What is Niemann-Pick **Type C Disease?**

Niemann-Pick type C disease (NP-C) is a rare, progressive, irreversible and chronically debilitating lysosomal storage disease⁴ with an incidence of approximately 1 in 90,000 live births.⁶ It is an inherited condition and can present at any age, affecting infants, children, adolescents and adults.

NP-C is commonly undetected or misdiagnosed. This is often due to its highly variable clinical presentation, characterised by a wide range of symptoms like dysarthria, that individually, are not specific to the disease.^{2,4,6}

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- 2. Mengel E, Klünemann H, Lourenco C, et al. Niemann-Pick disease type C symptomatology: an expert-based clinical description. Orphanet J Rare Dis 2013: 8: 166.
- 3. Patterson M, Hendriksz, Walterfang M, et al. on behalf of the NP-C Guidelines Working Group. Recommendations for the diagnosis and management of Niemann-Pick disease type C: an update Mol Genet Metab 2012; 106(3): 330-344.
- 4. Vanier, M. Niemann-Pick disease type C. Orphanet J Rare Dis 2010; 5: 16.
- 5. Wijburg FA, Sedel F, Pineda M, et al. Development of a suspicion index to aid diagnosis of Niemann-Pick disease type C. Neurology 2012; 78(20): 1560-1567.
- 6. Wassif C, Cross J, Iben J et al. High incidence of unrecognized visceral/neurological late-onset Niemann-Pick disease, type C1, predicted by analysis of massively parallel sequencing data sets. Genet Med 2016; 18(1): 41-48.

For more information about where to refer patients suspected of having NP-C go to www.think-npc.com

