284851 - CAN CHRONIC COUGH WORSEN A CHIARI TYPE I MALFORMATION AND PROMOTE OCCIPITAL HEADACHES?

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Introduction
To recognize the relevance of the characteristics, complete neurological evaluation and imaging of chronic cough headaches.

Method: Case Report
REB approved.
Consent obtained.
Female, 38-year-old with asymptomatic Chiari Type I malformation (CIM), reported occipital headaches and dry cough.
MRI: worsening of CIM, cerebellar tonsils projecting 11mm below the foramen magnum with crowding.
A complete neurological and neuro-ophtalmological evaluation reported no significant findings.
Because the dry cough started at the same time as the occipital headaches, allergy testing was performed, revealing multiple environmental allergies; after the antihistaminic treatment, the dry cough and occipital headaches stopped.
MRI(a month later): CIM with mild decrease in cerebellar tonsilar descend, now 6.7 mm and less crowding.
MRI(a year after): CIM minimally noticeable.
The patient remains asymptomatic.
Key words: Chiari malformation, headaches, cough headache, allergies.

Discussion
CIM is found in 1 out of 10 MRIs and it can be asymptomatic. The most frequent symptom is cough headache, 30% of patients with CIM experience headache aggravated by cough and other Valsalva maneuvers (1), due to sudden increase in intrathecal pressure caused by obstruction to the free flow of CSF in the subarachnoid space. (2) This hindbrain malformation does not correlate with a higher incidence of primary episodic or chronic primary headaches. (1,5)

Cough headache can be a primary benign disorder diagnosed only if neuroimaging is normal (1,3)
Primary cough headache begins after age 60 and responds to indomethacin, while cough headache secondary to Chiari type I malformation usually begins before age 50, accompanied by posterior fossa sign/symptoms, does not respond to NSAIDs, tryciclics, tryptans, acetazolamide, Cox 2 inh., opiates or barbiturates.
Surgery is recommended in progressive posterior fossa or spinal cord
symptoms/signs, hydrocephalus, syringomyelia, refractory trigeminal and glossopharyngeal neuralgia.(1)

**Conclusion**

Chiari 1 malformation diagnosis is not enough to determine treatment. Cough headache has a different epidemiology in comparison with Chiari type 1 headaches, even though “cough related headache” might be the only symptom in both. Headaches triggered by coughing is an unusual clinical symptom and deserves specific attention.(4)

**References:**


MRI
Chiari Type 1 malformation with cerebellar tonsils projecting, 11 mm below the foramen magnum