



Hilarity to Hassle: A Rare Case of Laugh Induced Headache

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ABSTRACT: Headache is the one of the most common complaint with which patients presents in the general outpatient department. There are many rare precipitants for it for e.g. Coughing, straining, exercise, laughing, sexual activity etc^[1]. We present one such case of laugh induced headache which was very disturbing for the patient. Laugh induced headache could be primary or secondary. Primary LH (laugh induced headache) are without any apparent cause whereas secondary LH are associated with intracranial lesions.

KEYWORDS: Chiari Malformations, Cerebellar Tonsils, Headache, Laugh Induced Headache.

INTRODUCTION

Headache is among the common complaints for physician consultation. It can be rarely triggered by the laughing^[2]. Secondary laugh induced headache are associated with the Chiari type1 malformations. These malformations do not have any specific headache^[3]. The pain correlates with the area of herniation. The headache is usually sudden in onset and subsides on its own within minutes^[4]. In MRI of Chiari type 1 malformations there is descent of cerebellar tonsils into foramen magnum more than 5 mm. Here in we report one such case report of secondary laugh induced headache associated with cerebellar tonsil herniation but of 3mm into the foramen magnum.

CASE REPORT

We present a case of 26 years old male who visited in our OPD with chief complaint of headache from past 5 months which occurs only when he laughs. It was sudden in onset, non- progressive, sharp shooting in character, starts from back of head and generalizes. Headache lasts minutes to hours and gets resolved on its own only to reoccur when the patient laughs. There was no other aggravating nor relieving factor. No history of blurring of vision, photophobia, phonophobia, redness of eyes or tearing. No history of head or cervical trauma or any other injury. No history of any drug intake occasionally smokes tobacco. No significant past medical or surgical history. No family history of similar complaint. Thorough general and neurological examination was done which was unremarkable. Visual acuity was within normal limits. MRI Brain with Cervical spine was ordered which revealed bulge of cerebellar tonsils into the foramen magnum of around 3mm (figure 1). Hence diagnosis of secondary LH was made, and the patient was started on tablet sodium valproate prophylactically. Till now patient is doing well and is on our regular follow up. His serial brain imaging is planned to check for progression (if any) of pathology.

DISCUSSION

LH are rare cause of headache. There are reported cases of severe headache triggered by coughing, sneezing, straining, laughing, or stooping^[5]. In literature there is description of chronic, sharp, short lasting headache induced by laughter, shouting, straining in whom Chiari type 1 malformations was found^[6]. The pathogenesis of headache in such cases could be due to the pressure difference intracranial and intraspinal compartments when patient laughs. This pressure difference may cause displacement of cerebellar tonsils into the foramen magnum which causes pain^[7]. Pressure dissociation may sensitize pontomedullary and upper cervical pain pathway to produce neurogenic pain^[8]. The only drug reported to be effective in prophylaxis is Sodium Valproate^[9]. In patients of Chiari type 1 malformations (CM-1) headache occurs in 15-75 % of the cases^[10]. In 28% patients of CM-1 suboccipital headaches are described^[11]. The clinical features of CM-1 varies from short lasting cough headache to long lasting continuous headache^[12]. International classification of headache disorders criteria does not include LH^[13].

KEY MESSAGE

LH is a rare form of headache which could be primary (idiopathic) or secondary. Secondary are most of the times are associated with CM-1. So, every patient presenting with such complaint should undergo brain imaging to rule out this pathology and other intracranial lesions. Sodium valproate could be considered for the prophylaxis.

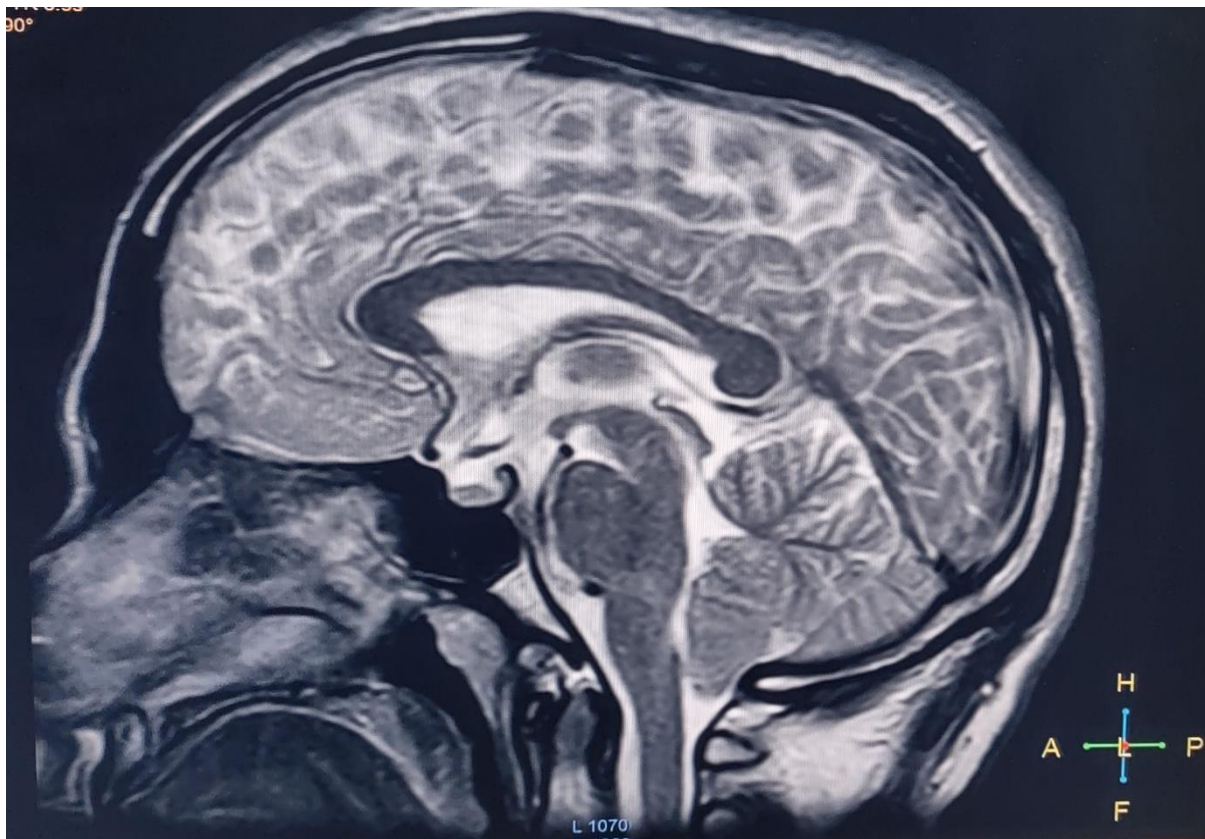


Figure 1. T2w image in sagittal section shows descent of cerebellar tonsils into foramen magnum

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Cite this Article: Navtej Singh, Tarun, Ankit Chamoli (2022). Hilarity to Hassle: A Rare Case of Laugh Induced Headache. International Journal of Current Science Research and Review, 5(1), 245-247