

Compression of the Vestibulocochlear nerve by a vascular loop. A case report

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Case Report

Neurology



Background:

This article presents the case of an adolescent patient with intermittent dizziness and vertigo initially attributed to anxiety or stress in multiple previous medical consultations. Due to the lack of improvement with the treatment, a cranial magnetic resonance imaging was performed and demonstrate the presence of a vascular loop compressing the VIII nerve. These findings supported the diagnosis of dizziness and vertigo secondary to compression, causing irritation and vestibular dysfunction. Treatment included vestibular therapy, symptomatic medication, and regular follow-up to assess treatment response and consider surgical intervention options if necessary. This case underscores the importance of comprehensive evaluation in patients with vestibular symptoms and highlights the need to consider fewer common causes, for proper management and improved patient quality of life.

Keywords: VIII Cranial Nerve compression.

A 16-year-old female adolescent has experienced intermittent dizziness and vertigo for 2 years. She has attended multiple previous medical consultations which were erroneously attributed to anxiety or stress. Symptoms tend to exacerbate during stressful events or high-stress situations, compounded by the fact that the symptoms started around the time of her parents' divorce and disruption of her home life. There was no history of neurological diseases, recent head traumas, or previous vestibular disorders.

She describes the dizziness as a sensation of spinning or swaying, sometimes accompanied by nausea but without vomiting. The episodes, which can last several minutes, occur regardless of her posture, with no specific triggers identified. Additionally, she reports a sensation of fullness in the left ear and a slight decrease in hearing on that side.

Case report

At the neurological examination there was no focal neurological deficits. The Romberg test is negative. The Dix-Hallpike maneuver is positive for rotary vertigo towards the left side. There is no spontaneous nystagmus, and the head impulse test is negative. Given the prolonged clinical course, vestibular therapy is prescribed to assist the patient in improving her stability and vestibular adaptation. An immediate approach with otoneurology is decided and a simple brain magnetic resonance imaging is requested.

Additionally, symptomatic medication is recommended including antiemetics for associated nausea. Regular follow-up is scheduled to evaluate treatment response and surgical intervention options will be considered if symptoms persist or worsen, after a 3-month follow-up period.

Magnetic resonance imaging reported a compressing vascular loop in the cerebellopontine angle on the affected side. The patient has remained in an adequate state, referring to an 80% reduction in symptoms, without clinical signs of severity, and without interest in seeking further medical or surgical management by the patient and family members.

Discussion

In this case, no specific symptoms as dizziness and vertigo and the patient's familiar context can lead to an under diagnosis and a distancing between the patient that may feel disregarded. Identifying a vascular loop show the importance of a comprehensive evaluation and a careful consideration of patient's symptoms and not dismiss them without all pertinent studies being performed. Multidisciplinary treatment, including vestibular therapy, medication, and, in select cases, surgical intervention, may be necessary to optimize outcomes and provide relief to the patient.

Conclusion

It is of great importance to consider all symptoms to achieve an early recognition, being

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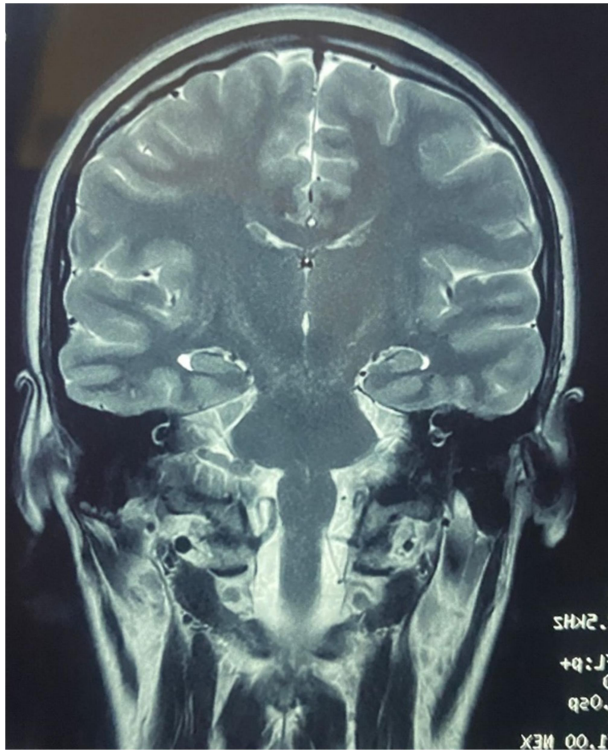


Figure 1. Coronal section of brain magnetic resonance imaging showing evidence of compressing vascular loop.

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mindful of the patient and having differentials it is not only a necessary part of a good and ethical work, its essential to maintain a good relation with the patient and the family. Then, a proper management of vestibular disorders are crucial for improving patient quality of life. Multidisciplinary treatment is necessary to optimize treatment and prevent long-term complications.

Conflicts of interest

There is no conflict of interest in this case.

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