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Case Report

Idiopathic Intracranial hypertension in a patient with a history of migraine: a case report

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Introduction
Idiopathic intracranial hypertension (IIH) is marked by elevated intracranial pressure without a known cause, often affecting women of childbearing age and linked to obesity. Diagnosing IIH can be tricky, especially in patients with chronic headaches like migraines. This report discusses a case of IIH in a long-term migraine sufferer, stressing the importance of early detection and effective treatment.

Case Report
A 44-year-old woman with migraines since menarche sought medical help in August 2021 due to more frequent and intense headaches, occurring three times a week with light and sound sensitivity and nausea. An MRI in September 2021 showed rare anomalies. Initially treated with topiramate and nortriptyline, her headaches decreased to twice a month by May 2022. However, in November 2022, an ophthalmologist found bilateral papilledema, and she reported retroocular pain and transient visual obscurations. A lumbar puncture confirmed IIH with an opening pressure of 32.5 cmH2O, and she was prescribed acetazolamide. Despite some headache relief, she experienced nausea and visual distortions. Adjustments in her medication and a five-kilogram weight loss improved her symptoms, though issues in the left eye's visual field persisted.

Comment
This case highlights the challenges of managing IIH in migraine patients. New headache patterns and visual symptoms were key to suspecting IIH, confirmed by lumbar puncture. Acetazolamide effectively reduced her intracranial pressure, while nortriptyline helped manage sleep issues. Weight loss significantly improved symptoms, emphasizing the need for a multidisciplinary approach between neurologists and ophthalmologists are for optimal care.

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Introduction

Idiopathic intracranial hypertension (IIH) is a nosological condition with an unclear etiology, characterized by an increase in intracranial pressure without any concrete evidence of intracranial mass or hydrocephalus. This disorder frequently affects women of childbearing age and is associated with obesity (1). The diagnostic establishment is often challenging, particularly in individuals with a clinical history of chronic headache, such as migraine. The present case report outlines the emergence of IIH in a patient who had long been suffering from migraine, highlighting the prominence of prompt diagnosis and the implementation of appropriate therapeutic approaches (2).

Case Report

The clinical report presents the case of a 44-year-old woman with a history of migraine accompanied by visual aura since menarche, who sought medical assistance in August 2021 due to an increase in headache frequency, now occurring three times a week. The headache, pulsatile and unilateral, was accompanied by photophobia, phonophobia, and nausea, occasionally culminating in vomiting episodes. The patient also had comorbidities such as congenital dumping syndrome, presbyopia, and a long-term smoking history.

An evaluation through cranial magnetic resonance imaging (MRI) of the brain, conducted in September 2021, revealed rare anomalies in the white matter, while laboratory tests did not show any irregularities. The instituted therapy, composed of topiramate 25mg every 12 hours and nortriptyline 10mg, resulted in a favorable response. By May 2022, the frequency of headache episodes had reduced to two per month, associated with the menstrual cycle. At this stage, topiramate was discontinued, persisting only with nortriptyline due to improved sleep patterns.

In November 2022, the patient was referred by an ophthalmologist due to the detection of bilateral papilledema (Figure 1). The clinical description included retroocular pain, transient visual obscurations, and holocranial headache, particularly exacerbated at night. Cranial and orbital computed tomography (CT) did not reveal any abnormalities. However, a lumbar puncture demonstrated a significant increase in opening pressure, set at 32.5 cmH2O, corroborating the diagnosis of IIH. Subsequently, the patient was prescribed acetazolamide 250 mg every eight hours.

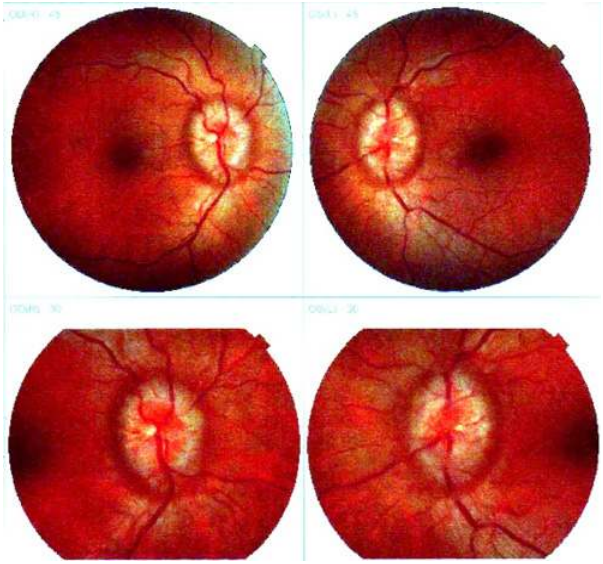

Figure 1. Fundoscopy examination showing bilateral papilledema.

Despite the mitigation of headaches, the patient began to experience additional symptoms, such as persistent nausea, limb paresthesias, and episodes of distorted vision, especially in the temporal visual fields. Subsequent ophthalmological examinations revealed a reduction in papilledema, though suggesting potential visual field deterioration in the left eye. During this period, the therapeutic regimen was adjusted, with acetazolamide 500 mg administered every twelve hours and the introduction of indomethacin 100 mg per day for one week.

In March 2023, the patient reported an accentuation of symptoms following a work-related stress episode, necessitating semi-reclined sleeping positions for headache relief. Additionally, she described a cranial burning sensation and tinnitus, associated with blurred vision during night driving. Although the visual field evaluation was normal, there was an improvement in right eye papilledema, though without corresponding benefit in the left eye. Notably, the patient had a weight reduction of five kilograms since the beginning of the treatment.

At the follow-up consultation in December 2023, the patient reported a general sense of well-being, associated only with premenstrual discomforts, with no reports of scotomas or transient visual obscurations. She continued using acetazolamide 500 mg every twelve hours and nortriptyline 10 mg at night, maintaining stable with a body weight of 70 kg.

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Discussion

The discussion following this case report outlines the intrinsic complexity in diagnosing and treating IIH in individuals previously affected by migraines (1,3). The symptomatic progression observed in the patient, marked by the emergence of new headache patterns, transient visual obscurations, and papilledema, played a crucial role in the clinical suspicion of IIH, which was later confirmed through lumbar puncture, revealing elevated opening pressure (4).

The therapeutic management of IIH in patients with a history of migraine can prove challenging, given the potential symptomatic overlap between both clinical entities. The use of acetazolamide, a carbonic anhydrase inhibitor, proved effective in reducing intracranial pressure, while nortriptyline contributed to managing associated sleep disorders (2,5). Weight loss also played a predominant role in symptom improvement, highlighting the importance of a multidisciplinary therapeutic approach in treating IIH (6).

Adherence to the therapeutic plan and regular clinical follow-up emerge as imperatives for effective monitoring of treatment response and necessary adjustments. In the acute context, the use of corticosteroids, such as methylprednisolone, can offer significant benefits in reducing papilledema and alleviating associated symptoms (5). Additionally, this case underscores the relevance of collaborative interaction between neurologists and ophthalmologists in managing IIH, thus fostering a more holistic and effective therapeutic approach for the patient (3).

In summary, this case report underlines the importance of thorough evaluation in patients with a history of chronic headache and the timely recognition of indicative signs of IIH, aiming at implementing appropriate therapy and preventing complications such as irreversible visual loss. It also highlights the crucial importance of early diagnosis and the adoption of a comprehensive and multifaceted therapeutic approach in managing idiopathic intracranial hypertension, particularly in patients with a history of migraine, aiming not only to prevent complications but also to significantly improve the patient's quality of life.

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