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Case Report

Idiopathic Intracranial Hypertension in a Transgender Male on Hormone Therapy

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Abstract

Headaches are a frequent presenting complaint in the Emergency Department (ED), making up approximately 3.2% of visits annually. Emergency medicine physicians must be adept at differentiating the benign headache from the life-threatening headache associated with critical secondary causes such as an intracranial hemorrhage, mass, or infection. Most headaches are self-limited and arise from primary headache syndromes, but many patients may suffer recurrent headaches with no clear etiology. The first step at determining a headache's cause is a careful history and thorough physical exam, which is often adapted based on the differential diagnosis. A patient's gender, for example, may tempt clinicians to overlook certain causes of headache, potentially leading to a missed diagnosis and lack of appropriate treatment for particular groups of patients. This case report describes the presentation and treatment of headache and visual disturbances secondary to idiopathic intracranial hypertension (IIH) in a female-to-male transgender (FTM TG) patient and discusses the need for increased knowledge of transgender health concerns among healthcare providers.

CASE PRESENTATION

Headaches are a frequent presenting complaint in the Emergency Department (ED), making up approximately 3.2% of visits annually [1]. Our patient is a 24 year-old FTM TG referred to the ED by his optometrist. He originally presented to the optometrist with complaints of increasing migraines for the last 3 weeks, as well as visual changes he attributed to a new contact prescription. He reported 4 days of intermittent tunnel-like vision, decreased visual acuity, and floaters as well as worsening frontal headache. The optometrist referred the patient to the nearest ED. He initially presented to a community ED but was transferred to our facility for ophthalmology consultation for presumed optic neuritis and multiple sclerosis.

Physical examination was remarkable for significant bilateral papilledema. Visual acuity was 20/20 with new corrective lenses, and a full neurological exam was within normal limits. Optic neuritis was considered unlikely given his bilateral papilledema. A headache cocktail containing ketorolac, normal saline bolus, diphenhydramine, and prochlorperazine were given with partial relief of symptoms.

MRI brain was normal, with no identifiable mass, lesion, or signs of increased intracranial pressure. A lumbar puncture (LP) with opening pressure was performed and showed a pressure of 41 cm of water. The cerebral spinal fluid (CSF) was sent for labs, and the CSF was drained until intracranial pressure was 20 cm of water at closing. Following CSF drainage, the patient had complete resolution of symptoms. Neurology was consulted, and it was recommended that the patient start500 mg of acetazolamide twice daily with follow up within the week. Endocrinology was also consulted and recommended decreasing his testosterone dose by 50% with follow up within the week. The patient was discharged home with a diagnosis of IIH,a treatment regime, and follow up instructions.

On follow up two months later, the patient remained symptom free. His headache, papilledema, and visual disturbances had not returned. He did report minor side effects from the acetazolamide, which subsided after one week of use. Our patient was also frustrated with his decreasing masculinity and had begun titrating his testosterone dose back up to his previous level with his doctor's supervision. He had also started a weight loss regime.

DISCUSSION

The exact pathogenesis of IIH remains unclear. The most compelling argument is that IIH is due to either disequilibrium between cerebrospinal fluid production and absorption, a disturbance of cerebral venous outflow, or some combination of the two [2]. Links exist between IHH and polycystic-ovarian

syndrome, systemic lupus erythematosus and obesity [2-10]. Additionally, associations have been made between IHH and certain medications, including anabolic corticosteroids, antibiotics, retinoids, growth hormones, and oral contraceptives. Thus, a thorough medication history may be key in the diagnosis of IHH.

Treatment goals include prevention of visual loss and symptom relief. A significant portion of patients that get suboptimal treatment will progress to permanent visual loss [11]. Carbonic anhydrase inhibitors are first line therapy for the treatment of papilledema. The standard dosage is 500 mg extended release preparation twice daily [12]. Side effects include paraesthesia, nausea, malaise, and electrolyte imbalance. However, weight loss may actually have the most benefit, as multiple studies have shown than even modest weight loss decreases papilledema secondary to IIH [8, 13].

There are only 4 other cases of IIH in FTM TG individuals in the literature [14-17]. The case reported here is the only known case where the diagnosis of IIH in a FTM TG individual on hormone therapy (HT) was made in the ED. Hormone therapy is part of the transition process for many transgender individuals and is becoming more common. While recent publications report that supervised HT has a low risk profile, it is important that physicians understand the benefits and risks of HT, as they would with any medication [18].

CONCLUSIONS

In this case of IIH in a FTM TG patient, the diagnosis was made more difficult because the patient did not initially identify himself as a TG individual nor was his use of testosterone discovered until after the diagnosis of IIH had been made. There are many potential reasons why this communication gap occurred. One possible explanation may be related to the patient's discomfort in the ED. Stigma and discrimination that TG people face may cause TG patients to feel uneasy in healthcare settings. In one study, one in four participants reported being denied medical care because they were transgender [19]. In a 2010 national survey, 70% of transgender respondents reported experiencing health care discrimination, and of these individuals, 20.3% of them reported being blamed for their own health problems by their providers [20]. Given the prevalence of discrimination, it is not surprising that mistrust exists when transgender people seek medical care.

There are an estimated 1.4 million people in the US who identify as transgender [21]. Advocacy for gender non-conforming people in the US has allowed this community to become more visible, yet significant barriers to medical care still exist for transgender people [22]. Difficulty finding providers knowledgeable about transgender health issues as well as a dearth of transgender-friendly providers are the most commonly reported barriers to care [23]. As such, it is imperative that health care providers receive education that shifts their attitudes and increases their knowledge on the healthcare needs of transgender patients. Research has demonstrated that medical students with greater clinical exposure to lesbian, gay, bisexual, and transgender (LGBT) patients not only demonstrate more positive attitudes toward LGBT patients and are more knowledgeable about LGBT health issues, but they also perform more comprehensive medical histories than students without clinical exposure to these groups of patients [24]. Changes in physician training may not only decrease barriers to healthcare access for transgender patients, but it may also aid physicians in making more accurate and timely diagnosis.

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