

CASE REPORT

Treatment of Medical Therapy-Resistant Vestibular Migraine with Cranial Osteopathy: A Case Report

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Abstract

Vestibular migraine is a variant of migraine with episodic vestibular symptoms. Diagnostic criteria were determined in 2012 and the term vestibular migraine was used. Lifetime prevalence in adults is calculated as 1%. The time between the onset of migraine and the onset of vestibular attacks varies among patients. In many patients, migrainous headaches begin before vestibular attacks. Sometimes vestibular attacks can begin years before migraine headaches occur. Vestibular symptoms and attack durations may vary between patients and in different episodes of the same patient. Today, drugs used in the treatment of migraine are generally used in the treatment of vestibular migraine. However, these drugs can sometimes be ineffective or provide short-term improvement. This situation requires -especially for these patients- a treatment scheme that includes different type of holistic medicine approach. In this case report, a vestibular migraine patient who was resistant to medical migraine treatment and was treated with osteopathic treatment method will be discussed.

Keywords: Migraine, Vestibular migraine, Migrainous headache, Osteopathy, Osteopathic treatment, Osteopathic therapy

INTRODUCTION

Today, the relationship between migraine and vertigo has been clearly defined. For the classification of vestibular diseases, the Barany Society Diagnostic criteria for vestibular migraine (VM) and probable vestibular migraine (PVM) have been established¹. Vestibular migraine prevalence has been reported in various publications as 4.2-29.3% in otolaryngology clinics and 9-11.9% in headache clinics. In elderly patients, especially in postmenopausal women, it has been shown that typical migraine attacks turn into isolated dizziness or vertigo attacks. Vestibular migraine can develop at any age. Average age of onset in adults is reported as 46 years². Rotational or nonrotational vertigo in vestibular migraine can be seen with spontaneous or positional changes. In one study, spontaneous rotatory vertigo was found in 67% and positional vertigo was found in 24%. In vestibular tests, there is no pathognomonic finding for vestibular

migraine, but central vertigo must be distinguished. The generally accepted mechanism for migraine is that activation and sensitization of the trigemini-vascular system (TVS) that causes headache³.

CASE

A 52-year-old female patient had complaints of vertigo attacks that recurred 3-4 times a month for a year. There had been an increase in vertigo in the last 2 months. The complaint of vertigo had been increasing with movements. Recently, there was a throbbing headache that involved the half of the head, accompanied by photophobia and phonophobia that lasts for 3 hours. The patient was known to have hypothyroidism and diabetes, as well as severe migraine. Because of these complaints, she was repeatedly evaluated in ear-nose-throat and neurology clinics, no pathology was found in the examination and laboratory findings, and treatment was started with

levotroxin, metformin hydrochloride, betahistine dihydrochloride and nonsteroidal anti-inflammatory drugs. Despite the long-term treatment, the patient whose complaints continued applied to our clinic again. Cranial MR, MR venography, carotid-vertebral doppler ultrasonography, routine biochemistry and blood analysis findings were normal (Figure 1).

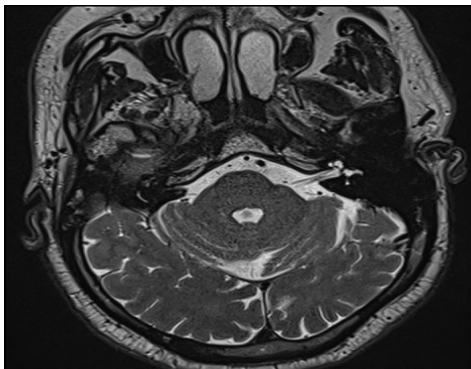


Figure 1. Cranial MR

There was no hearing problem in the audiological examinations of the patient during the attack. Triptans and Selective Serotonin Reuptake Inhibitors (SSRIs) and vestibular rehabilitation treatments were administered to the patient. Despite all these treatments, the patient was referred to an osteopath physician for osteopathic evaluation, since her complaints did not regress. At osteopathic examination (Figure 2) revealed left side bending and rotation dysfunction, defined as physiological dysfunction of the sphenobazillary joint (Figure 3)⁴.



Figure 2. Osteopathic examination

The detected dysfunction was manipulated by using the indirect technique (the method of

treating the dysfunction by further increasing the dysfunction on the dysfunctional side)⁴. No dysfunction was detected in other cranial osteopathic examinations. The patient was advised to come to her second session a week later and was sent home. The patient stated that her complaints completely disappeared after a week and she did not need a second session; so did not come to the treatment. Communication with the patient continued in the first, third, sixth, ninth and twelfth months. The follow-up was terminated considering that the attacks of the patient, whose complaints disappeared after the osteopathy treatment and did not have any complaints during the 1-year follow-up, were taken under control.

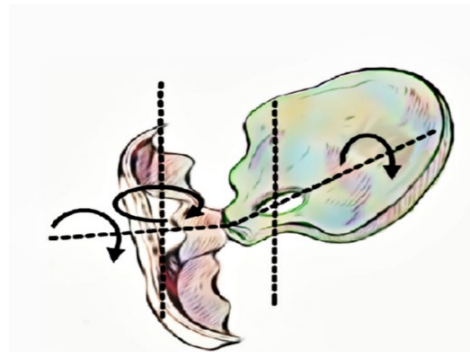


Figure 3. Left side bending and rotation dysfunction

DISCUSSION

Vestibular migraine can occur at any age. It is stated that it is 1.5 to 5 times more common in women than in men. In most patients, migraine occurs earlier. VM is more common in patients with migraine without aura compared to those with aura⁵. Dizziness attack associated with migraine is often manifests itself with; imbalance; movement intolerance with respect to head, eye, and / or trunk; spontaneous attacks of vertigo often accompanied by nausea and vomiting; increased photosensitivity (photophobia), decreased visual focus; tinnitus; ataxia; cervicgia (muscle pain associated with upper cervical muscle spasms); decreased cognitive functions; spatial disorientation and anxiety/panic symptoms⁶. Vestibular migraine treatment consists of acute attack management and prophylaxis, which also consists of current

protocols for migraine. In a study, migraine prophylaxis protocol was used for vestibular migraine treatment. In vestibular migraine prophylaxis, drugs such as beta blockers, calcium channel blockers, anti-depressants, valproic acid have been used. An improvement in vestibular symptoms was found in 81% of the patients ⁷. Johnson et al. found that migraine symptoms and vestibular symptoms decreased in patients who used benzodiazepines, tricyclic antidepressants, beta blockers and SSRIs. Çeliker et al. used valproic acid every day for 3 months in 37 migraine patients. Of the patients, 13 had no vertigo, 13 had no dizziness, and 11 had no vestibular symptoms ⁸. Pharmacological therapy does not always work in patients with vestibular migraine. The short effects and insufficient data of pharmacological treatment led clinicians to alternative treatment methods for vestibular migraine treatment. Karen et al. examined the effectiveness of osteopathic manual therapy (OMT) in female patients with migraine. In the study where they evaluated pain, migraine attacks and quality of life, it was stated that OMT reduced pain, decreased the number of days with migraine attacks and improved the quality of life ⁹.

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Although there are a limited number of studies examining the effectiveness of manual manipulation on dizziness, according to the Osteopathic literature and clinical experience of osteopaths, it has been observed that OMT relieves vertigo, especially in cases of peripheral vestibular vertigo ^{10,11}. The effectiveness of OMT treatment was shown also in our case that had vestibular migraine who was resistant to medical treatment and severely impaired the quality of patient's life. The mechanism of this effect is unknown. Tigeminivestibular reflex mechanisms can cause this. However, in order to understand the mechanism, controlled and randomized clinical studies with sufficient number of cases are needed.

OMT can be preferred as a complementary treatment in individuals with vestibular migraine with medication to improve the severity of dizziness, balance and self-confidence in daily activities.

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