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Case Reports

Dietary and Lifestyle Changes in the Treatment of a 23-Year-Old Female Patient With Migraine

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Abstract

Objective: The purpose of this case report is to describe the chiropractic management of a patient with atypical migraine headache.

Clinical Features: A 23-year-old woman experienced migraines for 3 months. She had no previous history of migraines and was unresponsive to pharmaceutical and musculoskeletal therapies. The migraine headaches could not be classified according to the common categories associated with migraines. She had a change in diet due to severe gastroesophageal reflux causing her to reduce or avoid consuming foods. She also had a history of smoking and alcohol consumption.

Intervention and Outcome: Dietary and lifestyle changes were recommended in conjunction with the administration of a multivitamin, magnesium oxide, and *Ulmus rubra*. Her migraine headaches improved with the resolution of her gastroesophageal reflux symptoms.

Conclusion: This patient with atypical migraines and a history of poor dietary and lifestyle choices improved using nutritional changes and supplementing with a multivitamin and magnesium oxide.

Introduction

Migraine headaches (HA) are a major health problem in the United States affecting between 11.7-16.6% of the population.[1] This type of HA can be extremely debilitating causing a significant amount of personal pain and discomfort. The severe nature of nociceptive pain experienced by migraineurs is demonstrated by the number of visits to the emergency department in 2009. In 2009, 12 million people presented to the emergency department complaining of a migraine HA, which was the fifth most common condition treated in an emergency setting.[1]

Although the exact etiology of migraines is not understood, the condition is believed to be influenced by a multitude of different factors. A hereditary component of migraines has been observed in 65–90% of cases.[2] Women have an 18% risk of having a

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migraine compared to a 6% chance in men.[3] The higher prevalence in women is typically attributed to hormonal fluctuations especially estrogen.[4] Migraines typically begin during puberty or between the ages of 35 and 45 years.[5] Alcohol and caffeine can contribute to dehydration initiating a migraine.[2] Migraines may also occur as a side effect from certain medications. The onset of the migraine may be insidious or can be precipitated by an aura, which lasts a few minutes and includes diplopia or bright spots in the vision; a feeling of fatigue or anxiety, confusion, or disorientation; or unilateral paresthesias in the extremities.[6]

Migraine headaches are classified as being common, classic, complicated, or variant.[6] Common migraines account for 80% of all migraine HA.[5] This type of HA manifests as an unusual aura with frontal, unilateral, or bilateral pain for 1 to 3 days.[5] Classic migraines are responsible for an estimated 10% of cases. They occur with an aura 30 minutes prior to the onset of a unilateral HA, and vomiting is often present. Complicated migraines are unpredictable, last for a variable duration of time and the individual usually experiences a neurologic aura such as vertigo, syncope, diplopia and hemiparesis.[6] Migraines that do not manifest as any of the previously discussed categories are variant.[6]

The treatment for typical migraine HA ranges from the administration of medications, herbal remedies, and supplements to the utilization of massage, acupuncture, and chiropractic manipulation.[7–10] The effectiveness of these different therapeutic methods has been well evaluated for the relief of migraine HAs.[7–10]

At present, there are very few case reports that describe the chiropractic treatment of patients with migraine. Therefore, the purpose of this case report is to describe the chiropractic management of a patient with atypical migraine headache.

Case Report

A 23-year-old Hispanic woman sought treatment for atypical migraine HAs that did not respond to musculoskeletal (acupuncture and chiropractic) or pharmaceutical (Ibuprofen and Excedrin) therapies. She had been experiencing migraines for 3 months, but had no previous medical history of migraines. The migraine HAs were precipitated by visual and auditory stimuli, which initiated paresthesias in her temples that radiated posteriorly toward the occiput bilaterally and caused debilitating pulsating pain with diplopia. Upon the onset of the migraine, she would go into a dark room and lie down until the episode dissipated, which could take several hours. She suffered from multiple migraines per week, almost every day at any time of the day and the intensity was a 10-10 according to a numeric pain scale with 1 being the least intense and 10 being most intense. The patient was considerably stressed due to the large number of days that she had to take off from work.

History, Examination, and Laboratory Findings

The patient had neither a family history nor previous personal history of migraines and was unresponsive to over-the-counter ibuprofen and excedrin and musculoskeletal therapies.

During the history taking process, the patient revealed that she had a previous past medical history of severe gastroesophageal reflux (GERD) that started 6 months earlier but was not diagnosed until 4 months ago.

Her GERD caused an erosion of part of her esophagus and the formation of a polyp, which was observed during an endoscopic exam. According to her medical doctor, the GERD was a result of the consumption of fast food, Ramen noodles and toaster strudels for a majority of her meals, since around age 13. She also admitted to drinking 4 to 5 bottles of Coke a week; drinking alcohol 3 to 4 nights a week, consisting of 5 to 6 bottles of beer with 4 to 5 shots; and smoking 1 1/2 packs of cigarettes on the weekend and half pack during the week for 5 years. However, upon the diagnosis of her GERD, she ceased all of these activities except smoking.

For the treatment of her GERD, she made dietary changes and began taking Nexium (Esomeprazole). However, she had adverse effects and began taking Dexilant (Dexlansoprazole). Her migraines began 1 month after she began taking antacids and making the following dietary changes. Her new diet consisted of a fruit smoothie in the morning with breakfast, a sandwich for lunch usually turkey, and usually nothing for dinner. Not only did her GERD symptoms continue but she also began to feel dizzy and light headed and would less frequently experience palpitations and dyspnea with minimal exertion. In addition, when she brushed her hair or showered, some of her hair fell out. She also lost 30 lb over the past 6 months.

An examination exhibited no abnormalities in her vitals, orthopedic tests, reflexes, muscle strength tests, or on abdominal examination. Hypertonicity of the suboccipitals and upper trapezius muscles was evident. Cranial nerve examination was unremarkable. Complete blood count, fecal occult blood test, and urinalysis