

## A Case of New Onset Migraine with Prolonged Aura Mimicking Cerebrovascular Accident in an Adolescent

Bir Adölesanda Serebrovasküler Olayı Taklit Eden, Yeni Başlangıçlı ve Uzamış Auralı Migren

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### Abstract

Acute migraine attacks are less common in children and adolescents than adults. In children and adolescents, migraine with aura is much less common than migraine without an aura.

A 16 year old male patient presented to our emergency department with a worsening headache, accompanied by nausea and difficulty in speaking. On physical examination, the patient described a bouncing type headache in the left temporal area. The patient also had diplopia, dysarthric speech, difficult understanding and sensory deficit in the right face, right arm and hand. Blood biochemistry, imaging studies and lumbar puncture showed no acute pathology. He responded positively i.v. medication. He was diagnosed with migraine with prolonged aura. (*JAEM 2011; 10: 39-40*)

**Key words:** Migraine with aura, stroke, adolescent

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### Özet

Akut migren atakları, çocuk ve adölesanlarda erişkinlere göre daha nadir görülür. Çocuk ve adölesanlarda auralı migren, aurasız migrenden daha da nadirdir.

16 yaşındaki erkek hasta, acil servismize bulantı ve konuşmada zorluğun eşlik ettiği, kötüleşen baş ağrısı şikayetiyle başvurdu. Hasta fizik muayenesinde sol temporal bölgede güçlü bir baş ağrısı tarif ediyordu. Hastada aynı zamanda diplopi, dizartrik konuşma, anlama güçlüğü; sağ yüz, sağ kol ve elde duyu defisiti mevcuttu. Kan biyokimyası, görüntüleme çalışmaları ve lomber ponksiyon sonuçları doğal olarak geldi. İv ilaç tedavisine cevap verdi. Uzamış auralı migren tanısı aldı. Migren, genç hastalarda bazen klinik olarak geçici iskemik atakı taklit edebilir. Acil serviste dikkatli alınan özgeçmiş ve yapılan fizik muayene, alta yatan problemlerin gösterilmesi ve ekarte edilmesi için genellikle yeterlidir. (*JAEM 2011; 10: 39-40*)

**Anahtar kelimeler:** Auralı migren, inme, adölesan

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### Introduction

Migraine is a primary headache that causes extreme drowsiness and it is associated with significant reduction in work and school productivity. Migraine can mimic a transient ischemic attack and therefore can be more complicated. We present a case of a 16 year old male patient who was diagnosed with a new onset prolonged aura migraine that mimics a cerebrovascular accident in our emergency department (ED).

### Case Report

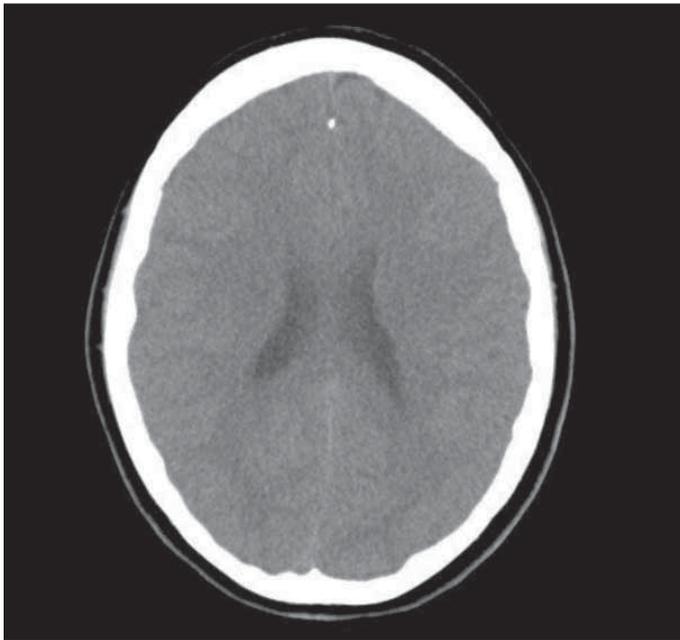
A sixteen year old male patient presented in our ED with a worsening headache accompanied with nausea and speech difficulty. The patient had no history of any known illnesses, allergies, medications or illicit drug use. His vital signs were unremarkable. The patient's mother had been diagnosed with migraine. Patient described a

bouncing type headache in the left temporal area, and did not obtain any relief from analgesics. The patient also had anxiety, diplopia, dysarthric speech, difficulty in understanding what was being said, mild lightheadness, nausea, photophobia, phonophobia, numbness and sensory deficit in the right face, right arm and right hand that eventually developed in the left arm as well. The patient had been experiencing these symptoms for 7 hours before he presented to us.

Blood biochemistry, ECG, chest X-ray, LP, EEG, cranial tomography were within normal limits (Figure 1). The patient was sent for consultation with neurology. Following his discharge from the ED, the patient was followed up by the neurology department (with MRI and MRI angiography).

He responded positively to iv metoclopramid and steroid treatment. The patient became asymptomatic at the end of the 20<sup>th</sup> hour of his ED stay and was discharged from the ED without further event.

The patient was diagnosed with migraine with prolonged aura.



**Figure 1.** Non-contrast cranial computed tomography of the patient

## Discussion

Different types of signs and symptoms can be seen in young patients. About 10% of adolescents between the ages of 13 and 19 experience migraine. Migraine is experienced by 4 to 5% of children under the age of 12 years. Migraine is seen slightly more often in boys than in girls under 12. However more adolescent girls are affected by migraine (1).

Migraine without aura (common migraine) is more common than migraine with aura (classic migraine). Even though there are relatively harmless (benign) symptoms of migraine with aura, there can also be severe and potentially life threatening symptoms.

In children and adolescents, aura starts about 30 minutes prior to migraine and lasts about 5 to 20 minutes. The symptoms of migraine with prolonged aura lasts between 60 minutes and 7 days (2).

Primarily in migraine with aura, resolving visual symptoms (lights, scotoma, zigzag lines, visual blurring, dark spots, micropsia and macropsia) and sensory symptoms (tingling, numbness, loss of feeling, one sided weaknesses), motor weakness and dysarthria are

seen. The headache that follows can last 4 to 72 hours, does not respond to treatment, is one-sided, pulsatile, moderate to severe, aggravated by physical activity and combined with nausea and/or vomiting, or photophobia and/or phonophobia (2).

Migraine with aura develops as a combination of environmental and genetic factors. In young patients, posterior circulation migraine can also be associated with ischemic stroke (3). Some similarities have been detected between common pathophysiologic mechanisms and neurologic image findings of migraine and ischemic stroke (4). It can be noted, although not explained with exact mechanisms and supported with exact data, that migraine can be an independent variable to trigger transient ischemic stroke or it can mimic transient ischemic stroke clinically (5).

## Conclusion

Migraine is a repetitive, disabling illness which is difficult to diagnose. Acute migraine attacks are less common in children and adolescents than in adults. Migraine can sometimes mimic transient ischemic stroke clinically. A careful medical history and physical examination results are often enough to identify or rule out serious underlying problems and conditions in the ED.

## Conflict of Interest

No conflict of interest is declared by the authors.

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