



Adult Abdominal Pain; A Rare Cause of Migraine Disorders

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ABSTRACT

Abdominal migraine (AM) is one of the variants of migraine and is rare in adults. This case report describes a 45-year-old woman with diagnosis of adult abdominal migraine. The patient improved with anti-migraine drugs. This disorder should be considered in the adult patients with abdominal pain who have normal complete gastrointestinal work-up

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Introduction

Abdominal migraine (AM) is one of the variants of migraine primarily occurring in children with prevalence of 1% to 4% (1). This disorder is characterized by acute paroxysmal episodes of abdominal pain followed by intense peri-umbilical pain (2). Diagnostic criteria of AM was added to the International Headache Society's International Classification of Headache Disorders-II (ICHD-II) in 2013 and to the Rome III Pediatric Criteria for Functional Gastrointestinal Disorders (FGIDs) in 2006

(3, 4). Although the pathophysiology of abdominal migraine remains unknown, but there are several hypotheses for this disorder including autonomic instability, disturbance in the hypothalamic-pituitary-adrenal axis, alternation motility of the gut wall, genetic influences, and differences in immune and neuronal structures within the bowel mucosa (5). AM has been demonstrated in adults rarely. There are multiple case reports on adult-onset of AM (6-9). This case report explains a woman with acute abdominal pain associated with migraine attacks.

Case Report

A 45-year-old Iranian woman was referred to neurology clinic at Razi hospital, Ghaemshahr, Mazandaran province, Iran, with acute abdominal pain and headache. Her first symptom had started when she was 8 years old with abdominal discomfort and nausea/vomiting. She had unfortunately undergone surgery with diagnosis of acute abdominal pain at that time. The patient had recurrent attacks of abdominal pain and vomiting every one or two month after surgery. Abdominal pain lasted 48 to 72 hours. The patient had no complained between attacks.

Up to 15 years old, she has not had headache or other neurologic symptoms. After the age 15, the patient had throbbing headache at bilateral fronto-temporal and abdominal pain simultaneously. Abdominal pain lasted 24 hours but headache continued up to 48 to 72 hours. The associated symptom of headache was nausea, vomiting, photophobia, and phonophobia. The attacks of disease limited her ability to concentrate on work and to do usual daily activities. The patient sometimes had abdominal pain without headache. The attacks were usually repeated to times per month and the patient often needed to be injected dexamethasone and non-steroidal anti-inflammatory drug (NSAID) for recovery of headache. Starvation, insomnia, fatigue, and ingestion of certain foods such as cheese and pickle exacerbated the severity of attacks.

In the respect of family history, the patient's brother had similar symptoms and the patient's mother suffered from migraine headache. The patient had two children that they have not headache or abdominal pain. The patient had referred to medical internist due to severe abdominal pain. The physical examination, abdominal sonography, abdominal computed tomography (CT), endoscopy, porphyria urine test, and all the laboratory tests were normal. The patient was referred to neurologist due to headache. The patient's neurologic examination, electroencephalogram (EEG),

and brain magnetic resonance imaging (MRI) were normal.

The patient with the diagnosis of abdominal migraine was treated with oral sumatriptan 100 mg as abortive therapy at the onset of acute attacks and sodium valproate 500 mg daily as prophylaxis. After two months of treatment, the severity, duration, and frequency of headache and abdominal pain declined.

Discussion

In this case study, we reported an adult woman with abdominal migraine that has fulfilled the diagnostic criteria proposed by the ICHD, 3rd edition (beta version) for abdominal migraine, similar to numerous previous studies (3, 9, 10).

Although adult abdominal migraine is a rare disorder, but this disorder should be considered when assessing adults with recurrent abdominal pain who report headaches or have a family history of migraine. Unfortunately, some of the patients may undergo abdominal surgery with diagnosis of acute abdominal pain. Existing of recurrent abdominal pain during childhood, concurrency of headache with abdominal pain, having a family history of migraine, and improvement of symptoms with anti-migraine drugs could be helpful in the diagnosis of adult abdominal migraine. In addition, the IHS criteria seem to be effective for identification of abdominal migraine in adults. For all of the patients, complete gastrointestinal workup for excluding other causes of abdominal pain should be done.

Several drugs have been used as prophylactic therapy to reduce the incidence of abdominal attacks such as antiepileptics (sodium valproate and topiramate), tricyclic antidepressants (TCAs), calcium channel blocker, β -blockers, and cyproheptadine (9-12). In our case, complete gastrointestinal workup with normal results, positive family history of migraine, and a good response to sumatriptan as abortive therapy and sodium valproate as

prophylactic therapy during follow-up period, indirectly confirm the diagnosis of abdominal migraine.

As conclusion, abdominal migraine should be considered in adult patients with persistent abdominal pain, specially when accompanied with headache, and with normal complete gastrointestinal check-up.

Conflict of Interests

Authors have no conflict of interests.

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