

Abdominal Migraine Without Headache a Diagnostic Challenge

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Abstract- Abdominal migraine a reoccurring disorder that is associated with episodic attacks of abdominal pain lasting for 2 hours to 3 days which impose a great diagnostic challenge for clinicians as it is always misdiagnosed as gastrointestinal disorder .it is most frequently seen in pediatric population although the number of cases in adults is increasingly in the recognized .this condition may significantly affect the overall wellbeing and day today activities due to the intensity unpredictability of the symptoms . Abdominal migraine is a condition where a person experiences sudden episodes of stomach pain, often along with symptoms like nausea, vomiting, pale appearance, and changes in body functions (such as sweating or dizziness). These symptoms can negatively affect the person's quality of life. This condition is well understood in children, but in adults it is less clearly recognized, which makes diagnosis and treatment more difficult. Standard guidelines developed by the International Headache Society, especially in the ICHD-3 system, have helped make the diagnosis more consistent. However, some challenges still remain, particularly in adults, where the symptoms may not follow the typical pattern. The abdominal migraine the management strategies include both the pharmacological and approaches and {methods} or ways the pharmacological treatment categories into preventive therapies that aimed to relive symptoms during attack non pharmacological measures such as lifestyle improving and trigger avoidance also plays critical role in overall management.

Keywords: Abdominal migraine, Recurrent abdominal pain, Migraine variant, Gut brain axis, pediatric disorders

I. INTRODUCTION

Axon and associates posed the following query in an editorial from 1991: "Abdominal migraine." They

came to the conclusion that abdominal migraine is a credible diagnosis for a subset of patients who report with recurrent abdominal pain, even though they acknowledged the challenge of developing precise diagnostic criteria and the dependence on indirect evidence. The episodic illness known as abdominal migraine (AM) is primarily seen in children, while reports of adult occurrences are growing. Recurrent episodes of intense stomach pain accompanied by vasomotor symptoms, nausea, and vomiting are the hallmarks of the illness. The medical community's inadequate grasp of the illness stems from its historical under recognition. However, the Rome Classification of functional gastrointestinal disorders and the International Headache Society's (IHS) publishing of standardized diagnostic standards have greatly

disorders has greatly improved its clinical validity. Despite the paucity of research on AM, the knowledge that is currently available regarding its diagnosis, epidemiology, prognosis, pathophysiology, and management offers a helpful foundation for comprehending this disorder, which will be further examined in this review. A person with abdominal migraine experiences recurrent episodes of discomfort in the abdomen without a known medical reason. Although it is more common among youngsters, adults can occasionally experience it as well. The discomfort can range from moderate to severe and is typically felt in the middle of the abdomen, particularly close to the navel. Other symptoms like nausea, vomiting, pale skin, and appetite loss may also occur during these episodes. These symptoms may persist for several hours or even days and the victim feels totally normal in between the episodes. Since many patients have a personal or family history of migraines, abdominal

migraines are thought to be associated with migraine headaches. Although the precise origin is unknown, it is thought to be related to modifications in the way the

brain and digestive system communicate, as well as the function of specific hormones like serotonin [1-5]

Abdominal Migraine

Abdominal migraine is a condition where a person experiences repeated episodes of moderate to severe abdominal pain without any clear medical cause. It is mostly seen in children, but in some cases, adults can also experience it.

Symptoms:



Nausea



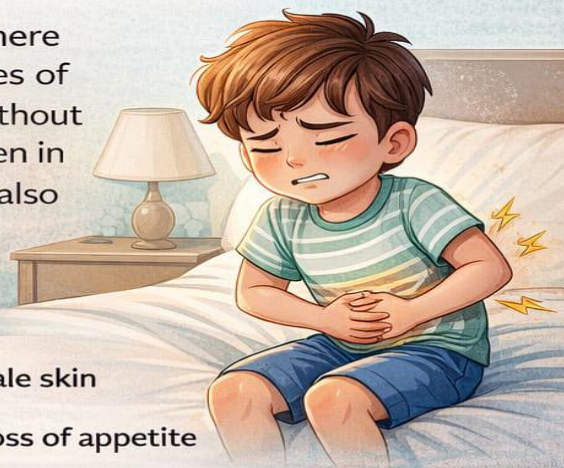
Vomiting



Pale skin

Pale skin

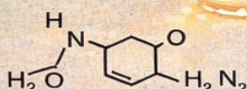
Loss of appetite



Along with abdominal pain, patients may also have symptoms like nausea, vomiting, pale skin, and loss of appetite. These episodes can last for a few hours or even days, and between the attacks, the person feels completely normal.



Abdominal migraine is thought to be related to **migraine headaches** because many patients have a family or personal history of migraine. It is believed to involve changes in the gut-brain connection and certain chemicals like serotonin.



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Figure -1

II. EPIDEMIOLOGY

Abdominal migraine is a condition mainly seen in children rather than adults. It affects children of ages between 3 to 10 years. In school-age children, it is considered one of the causes of repeated abdominal pain without any identifiable physical reason. This condition is more common in girls when compared to boys. Many children who experience abdominal migraine may have a family history, mainly parents and relatives, which shows that genetic factors may cause headache and migraine. Only a small number of children are affected, but the condition is seen all over the world.

In many cases, abdominal migraine may not show typical symptoms. So, the abdominal migraine symptoms may be confused with gastrointestinal problems [6-8].

III. PATHOPHYSIOLOGY

Abdominal migraine is even considered as a gut-brain disorder. Similar mechanisms seen in migraine and

cyclic vomiting syndrome (CVS). It involves the hypersensitivity of the nervous system which alters the neurotransmitter signaling (especially serotonin).

e.g.: gastric movement changes, vascular dysregulation, genetic predisposition.

Pathophysiological Features of Abdominal Migraine

Gut Brain Axis Dysfunction

- In abdomen, the hypersensitivity of sensory and spinal neurons leads to abnormal pain signaling.
- Serotonin, a neurotransmitter, is implicated in triggering pain and nausea.
- The cyclic vomiting syndrome (CVS) that leads to functioning abnormality between the gut and central nervous system

Vascular Dysregulation

- Like in migraine, blood vessels may occur in contributing to episodic pain.

FEATURE	ABDOMINAL MIGRAINE	CLASSIC MIGRAINE	CYCLIC VOMITING SYNDROME (CVS)
Primary symptom	Abdominal pain	Headache	Recurrent vomiting
Neurotransmitter role	Serotonin	Serotonin, CGRP	Serotonin, dopamine
Gut involvement	Strong	Limited	Strong
Vascular dysregulation	Yes	Yes	Possible
Genetic predisposition	Strong	Strong	Strong
Age of onset	Childhood (5-15)	Adolescence/adult	Childhood

Alteration of blood flow and neurovascular reactivity are thought to play, mirroring mechanisms in classic migraine.

Central Nervous System

- Abdominal migraine may also be classified as functional disorder (i.e., there is functional abnormality, not structural disorder).
- So, the key factors are CNS hypersensitivity and abnormality.
- May often associated hypersensitivity often episodic syndrome and pains off limbs the central role of brain dysfunction
- The changes overlap with functional gastrointestinal disorder like ibs [9-13].

FLOWCHART.

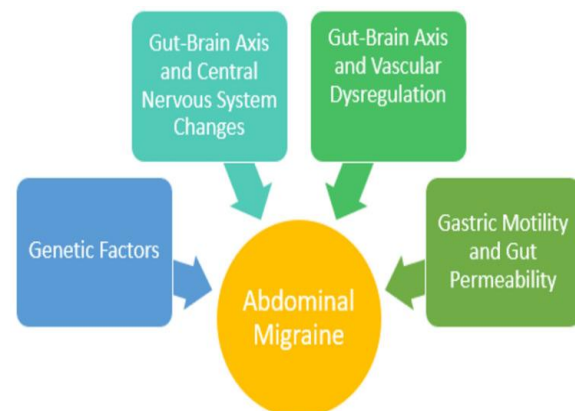


Figure -2

SYMPTOMS

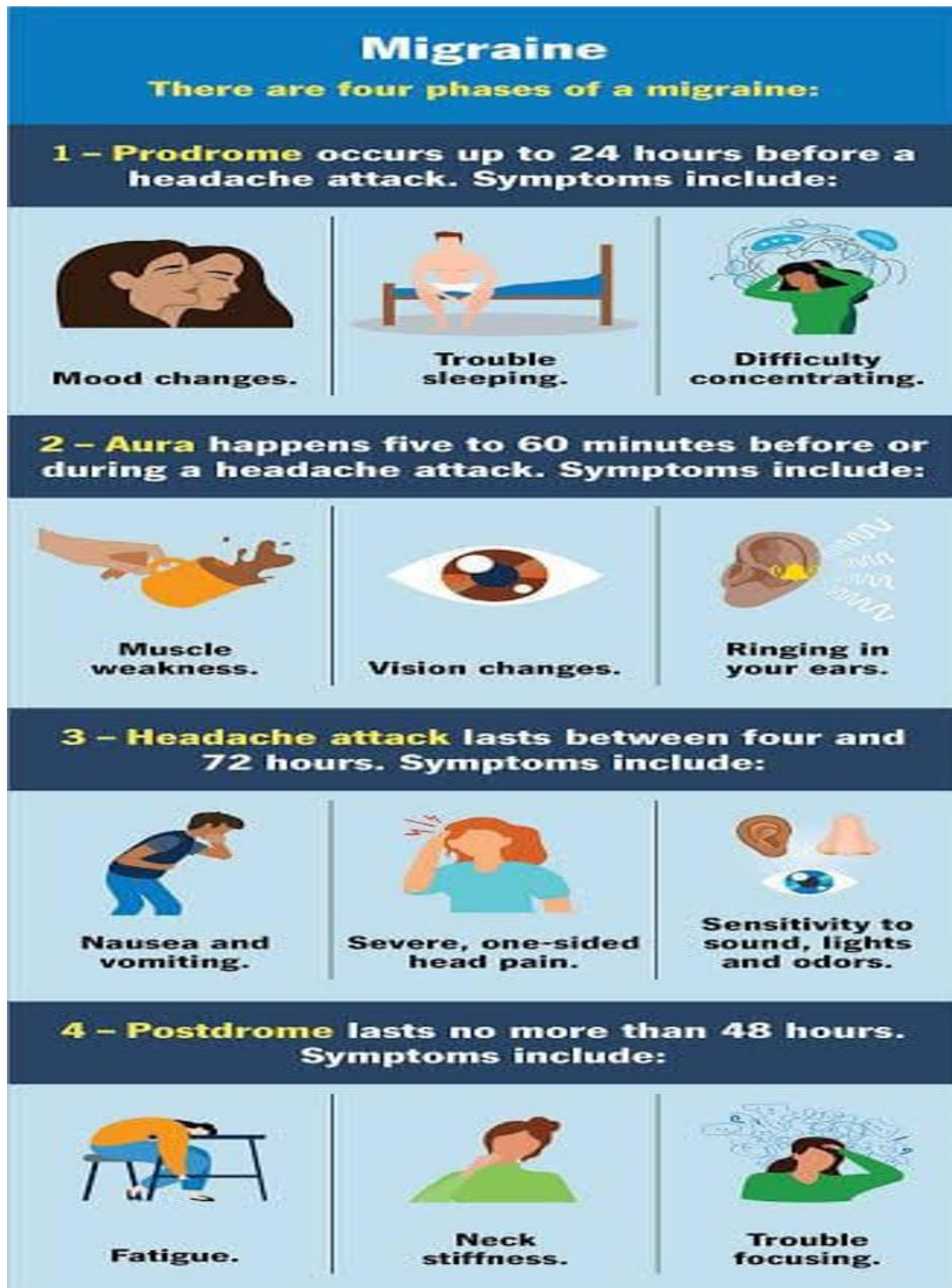


Figure -3

IV. DIAGNOSIS OF ABDOMINAL MIGRAINE

In 1922, the phrase "abdominal migraine" was first used to characterize episodes of abdominal discomfort that did not include a headache. It was sometimes mistakenly categorized under other forms of recurrent stomach discomfort for many years, and its validity as a distinct clinical illness remained questionable. A significant breakthrough When the HIS officially recognized abdominal migraine in 2004, it was classified as a childhood periodic syndrome under section 1.3 of the International Classification of Headache Disorders (ICHD), which is frequently thought to be a precursor to migraine. Growing evidence that recurring abdominal discomfort, even in the absence of a headache, may be a sign of migraine-related pathology reinforced this classification. Numerous studies have shown a strong correlation between migraine headaches and stomach pain [14-16]

Precipitating Factors of Attacks of Migraine and Abdominal Migraine

CAUSES	Migraine [n=159]	Abdominal migraine [n=58]
Tension	53 (33%)	15 (26%)
Feeling very tired	40 (25%)	13 (22%)
Journey, movement	32 (20%)	9 (16%)
Strong light, sunlight	31 (19%)	0
Not sleeping enough	30 (18%)	3 (1.5%)
Some specific foods	23 (14%)	5 (9%)
High temperature	23 (14%)	1 (0.5%)
Not eating on time	19 (12%)	10 (17%)

The co-occurrence of headache and abdominal pain rose with age, from 4% at 4 years to 20% by 10 years, according to a noteworthy prospective study involving 136 children [17]. This implies a connection between the two circumstances in terms of development. Additionally, migraine headaches and abdominal migraines have a number of traits. Both situations

displayed comparable demographic patterns in a large survey of 1,754 school-age children in Aberdeen (Abu-Arafah and Russell, 2013). They usually started around age 7 and were more frequently seen in girls than in boys. Additionally, similar triggering variables including stress, exhaustion, and travel have an impact on both illnesses. Rest and eating are common ways to get relief. Children with stomach migraines often have a positive family history of migraines.

Component During bouts, symptoms such as anorexia (loss of appetite), nausea, pallor, general malaise, limb pain, and cyclic vomiting are common to both regular migraine attacks and abdominal migraine.

According to the ICHD, AM is an idiopathic condition that primarily affects children. It is characterized by recurrent episodes of moderate to severe midline abdominal pain that last between two and seventy-two hours and are accompanied by vasomotor symptoms, nausea, and vomiting, with normalcy in between episodes. There are typically extended intervals without any symptoms in between these episodes, which do not include headaches. The discomfort is accompanied by nausea and vomiting and ranges in intensity from moderate to severe. The ICHD's diagnostic standards [18].

V. METHODS

To understand abdominal migraine, information is usually collected using a combination of clinical observation and patient history. Some studies focus on children who have episodic repeated abdominal pain but without any clear cause or physical reason. Doctors diagnose the condition based on patterns, even though laboratory tests are often normal, by collecting information about the patient and their genetic history. In some cases, additional tests like blood tests, blood investigations, and even X-rays may be required to rule out gastrointestinal and metabolic disorders. Follow-up and observation are also important to assess how symptoms change over time and to evaluate the patient's response to treatment.

VI. RESULT

- The research studies show that abdominal migraine is very common but clinical studies show that a small proportion of children suffer with abdominal pain

symptoms like pain, nausea, vomiting etc. This may lead to delay in diagnosis but treatment response is generally good with certain medicines. Even if there is often delay in diagnosis, high effectiveness in reducing symptoms is seen, although more studies are needed.

- Studies indicate long-term follow-up that the condition often improves over time. In many children abdominal migraine disappears as they get older [19].

Clinical Implications

- 1.Sudden episodes of severe pain around the belly button area that continue for one hour or longer.
- 2.In between these episodes, the person feels completely normal for weeks or even months.
- 3.The pain is strong enough to disturb daily routine activities [20]

Treatment:

Lifestyle Changes

Modifying the daily routine activities with minor healthy habits. it help us to manage abdominal migraine.

Proper Rest

Maintaining a proper sleep is crucial. maintain a consistent sleep schedule can help to reduce the risk of headache attacks.

Managing Stress

These episodes are frequently brought on by stress.it can be beneficial to reduce tension and engage in relaxation techniques like deep breathing, medication.

Avoiding Motion Triggers

Motion sickness occurs due to long journeys or travelling continuously for longer periods of time, so it can lead to nausea or can cause discomfort. Avoiding these incidents keep you comfort.

Regular Eating Habits

It's essential to eat meals on schedule. Maintaining a proper balanced diet lowers the chance of occurring, which can be triggered by prolonged fasting or meal skipping.

Medications

Medicines that may be used to manage abdominal migraine include:

Anti-Nausea Drug

These help control nausea and vomiting during an attack.

Triptans and ergotamine:

These medications are used to reduce discomfort and prevent migraine from getting worse.

Beta Blockers

These drugs are typically used to regulate blood pressure, but they can also help to stop reoccurring of the abdominal migraine.

NSAIDs (non-steroidal anti-inflammatory drugs):

These drugs help to lowering reduce fever, edema and pain. An example is Ibuprofen.

During an assault supportive care:

Symptom can be alleviated by resulting in a calm, dark area and applying an ice pack to the abdomen.

VII. HEALTHY HABITS

The occurrence of chance can be decreased by getting adequate sleep, eating often and drinking lots of water. Giving more fluids to a child who is vomiting is preventing dehydration. Abdominal migraine can interfere with da daily living and ordinary tasks even though they are often not a serious sickness [21].

VIII. CONCLUSION

Abdominal migraine is a condition that mainly affects children and is characterized by repeated episodes of abdominal pain without any clear physical cause. Even though it is not life-threatening, it can significantly disturb daily activities like school and play due to the severity of symptoms. The condition is believed to be closely related to migraine headaches, especially because many patients have a family history of migraine.

One of the main challenges with abdominal migraine is its diagnosis, as the symptoms often resemble other gastrointestinal disorders. Because of this, it is sometimes misunderstood or diagnosed late. Careful evaluation of symptoms, medical history, and

exclusion of other conditions are important for correct diagnosis. management of abdominal migraine involves both lifestyle changes and medications. Simple steps like maintaining regular sleep, avoiding stress, eating meals on time, and identifying triggers can greatly help in reducing the frequency of attacks. Medications may also be used when necessary to control symptoms and prevent recurrence. In many cases, children may outgrow this condition as they get older, although some may later develop typical migraine headaches. Therefore, early recognition and proper management are important to improve the quality of life. Further research is still needed to better understand its exact causes and to develop more effective and targeted treatment

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