CONDITION

Abdominal migraine

Learn how abdominal migraine causes repeated episodes of belly pain, how doctors diagnose it, and which treatments may help prevent or manage attacks.

WHAT IT IS
Condition causing repeated abdominal pain attacks

BODY SYSTEM
Digestive system

MAIN SYMPTOMS
Abdominal pain, loss of appetite, nausea, vomiting

WHAT CAUSES IT
Unknown, with possible nervous system and genetic factors

HOW IT IS DIAGNOSED
Recognizable attack pattern and evaluation for other causes

MAIN TREATMENT
Symptom relief, preventive treatment, lifestyle measures

CAN IT BE CURED?
Sometimes - symptoms stop as children age

IS IT AN EMERGENCY?
Sometimes - with severe dehydration

LONG-TERM OUTLOOK
Many children improve, though some develop migraine headaches

Overview

Abdominal migraine is a condition that causes repeated attacks of moderate to severe abdominal pain. The pain is usually near the middle of the abdomen or around the belly button. Between attacks, the person generally feels well.

The condition is most often recognized in children, but teenagers and adults can also be affected. Many people with abdominal migraine have a personal or family history of migraine headaches. Some later develop more typical migraine attacks involving headache.

Despite its name, abdominal migraine is not simply a migraine headache felt in the stomach. During a typical abdominal migraine attack, abdominal pain is the main problem. Some diagnostic systems state that headache should not occur during the episode. Others allow headache as an associated symptom. This is one reason a clinician must consider the complete

pattern rather than any single symptom.

Abdominal migraine can affect eating, sleep, school, work, and family activities. The pain may be intense enough to stop normal activity. However, it usually does not cause lasting injury to the digestive system.

There is no single blood test or scan that confirms abdominal migraine. Diagnosis is based on a repeated, recognizable pattern and an evaluation for other possible causes of abdominal pain.

Symptoms

Attacks tend to follow a similar pattern each time. They are separated by periods with few or no symptoms. Depending on the diagnostic criteria used, an untreated attack may last from at least one hour to as long as several days.

The abdominal pain is commonly:

Other symptoms may include loss of appetite, nausea, vomiting, or pale skin. Some people also report sensitivity to light, tiredness, flushing, or headache.

Symptoms such as fever, ongoing diarrhea, blood in the stool, steady weight loss, or pain that remains in one specific spot are not typical features. They do not automatically mean that something serious is wrong, but they should prompt medical assessment for another explanation.

Seek emergency care for abdominal pain accompanied by severe weakness, fainting, confusion, difficulty waking, a rigid or very swollen abdomen, vomiting of blood, green vomit, or signs of severe dehydration. Signs of dehydration can include very little urine, a very dry mouth, unusual sleepiness, or inability to keep fluids down.

Sudden severe pain, especially with trouble breathing, new weakness, or other rapidly worsening symptoms, also needs urgent evaluation. Recurring pain without these emergency features can usually be discussed through a routine medical appointment.

- Near the belly button, along the midline, or difficult to locate precisely
- Dull or sore rather than sharp
- Moderate to severe
- Strong enough to limit usual activities
- Similar from one attack to the next

Causes and risk factors

The exact cause of abdominal migraine is not fully understood. It is thought to involve some of the same nervous system pathways as migraine headache.

The brain and digestive tract communicate through nerves, hormones, and chemical messengers. This connection is sometimes called the brain-gut axis. Changes in pain processing, movement of the digestive tract, and migraine-related signaling may all contribute to an attack. This does not mean that symptoms are imagined or "all in the head."

Genetics may play a role. Abdominal migraine is more likely to be considered when the affected person or a close relative has migraine. A family history supports the diagnosis but is not required.

Possible attack triggers vary from person to person. They may include:

It is usually more helpful to look for a repeated personal pattern than to remove many foods without evidence. Restrictive diets can lead to poor nutrition, especially in growing children. Food changes should be discussed with a clinician or dietitian when attacks appear consistently linked to a specific item.

Stress can influence the brain-gut system and trigger symptoms, but it is not the only cause. Attacks may also happen during enjoyable events or when no trigger is obvious.

- Irregular meals, fasting, or not drinking enough fluid
- Too little or disrupted sleep
- Emotional stress or excitement
- Travel or motion sickness
- Intense exercise
- Certain foods in an individual person

Diagnosis

A clinician begins by asking about the timing, location, and severity of the pain. It is important to describe how long attacks last, whether the person is completely well between episodes, and whether each attack follows a similar pattern.

The clinician may also ask about nausea, vomiting, appetite, skin color, headaches, sensitivity to light, bowel movements, urinary symptoms, growth, menstrual history, medicines, and family history. A physical examination is usually performed.

Formal diagnostic criteria are available, but they are not identical. The International

Classification of Headache Disorders describes repeated attacks lasting 2 to 72 hours, with midline or poorly localized pain and symptoms such as nausea, vomiting, poor appetite, or pallor. It also emphasizes normal health between attacks and the absence of headache during the episodes.

The Rome IV criteria for childhood disorders of gut-brain interaction describe stereotyped attacks of intense abdominal pain lasting at least one hour and separated by weeks to months. Associated symptoms may include poor appetite, nausea, vomiting, headache, light sensitivity, or pallor. Symptoms must not be better explained by another condition after an appropriate evaluation.

Abdominal migraine is not purely a diagnosis of exclusion in which every possible test must be normal. However, a clinician must check whether the pattern fits and whether symptoms suggest another cause.

Tests are selected according to the person's history and examination. They may include blood, urine, or stool tests. Ultrasound or other imaging may be appropriate when symptoms are unusual or warning signs are present. Extensive testing is not always needed when the pattern is typical, growth is normal, the examination is reassuring, and there are no concerning features.

Other possible causes of recurring abdominal pain include constipation, celiac disease, inflammatory bowel disease, urinary problems, gallbladder or pancreatic conditions, food-related disorders, and cyclic vomiting syndrome. Clinicians may also consider other disorders of gut-brain interaction. In cyclic vomiting syndrome, repeated vomiting is usually the main symptom; in abdominal migraine, abdominal pain is the main symptom.

Treatment and management

Treatment aims to reduce discomfort during attacks, limit disruption, and prevent frequent or severe episodes. Evidence for abdominal migraine treatment is more limited than evidence for typical migraine headache, so care is often based on small studies, clinical experience, and the individual pattern of illness.

During an attack, resting in a quiet, dark room may help. Small amounts of fluid may be easier to tolerate than a large drink, especially when nausea is present. A clinician can advise when an oral rehydration drink may be useful.

Pain-relieving or anti-nausea medicines may be considered. Options sometimes include acetaminophen, a nonsteroidal anti-inflammatory medicine, or an anti-nausea medicine. These are not appropriate for everyone, and repeated use can cause side effects. Children and

teenagers should receive medicines only in age-appropriate forms and amounts recommended by a qualified clinician.

A clinician may consider a migraine-specific medicine called a triptan like sumatriptan or rizatriptan for selected patients. Evidence for triptans in abdominal migraine is limited, and these medicines are not suitable for every person. They should not be started or shared without medical guidance.

Daily preventive treatment may be discussed when attacks are frequent, prolonged, or highly disruptive. Medicines that have been used include cyproheptadine, propranolol, pizotifen, flunarizine, and topiramate. Availability varies by country. Some use is "off-label," meaning the medicine has not been specifically approved for abdominal migraine even though a clinician may judge it appropriate.

The choice of preventive treatment depends on age, other health conditions, possible side effects, and local practice. A clinician should explain the expected benefit, monitoring plan, and how long a trial may take. Preventive medicines should not be stopped suddenly unless a medical professional advises it or an urgent reaction occurs.

Daily habits may also lower the chance of attacks:

Behavioral treatments, including cognitive behavioral therapy, relaxation training, or biofeedback, may help some people manage pain and stress-related triggers. These approaches support regulation of the nervous system. Their use does not imply that the pain is psychological or unreal.

Schools may be able to provide access to water, rest breaks, missed-work plans, and a written action plan. Adults may benefit from a similar plan for work or travel.

- Keep sleep and wake times reasonably consistent
- Eat regular meals and avoid long periods without food
- Drink enough fluid throughout the day
- Use a symptom diary to identify repeatable triggers
- Plan healthy ways to manage stress
- Maintain suitable physical activity between attacks

Complications

Abdominal migraine does not usually damage the stomach or intestines. Its main effects come from repeated pain, nausea, and disruption of normal life.

Vomiting and poor fluid intake can cause dehydration during a severe attack. Frequent episodes may also interfere with nutrition, growth, school attendance, work, sleep, exercise, and social activities. Fear of the next attack can contribute to anxiety or avoidance.

Repeated use of pain medicines can cause side effects. Some pain relievers can also contribute to medication-overuse headache if a person later develops frequent headaches. Medicine use should be reviewed when it becomes regular.

Many children improve as they get older. Some eventually develop migraine headaches, while others stop having migraine-related symptoms. A new or clearly changed symptom pattern should not automatically be assumed to be another abdominal migraine attack.

Follow up

Arrange a routine appointment if abdominal pain repeatedly interrupts sleep, meals, school, work, or activities. Follow-up is also appropriate when attacks are becoming more frequent, home measures are no longer effective, or a prescribed treatment causes side effects.

A diary can make follow-up more useful. Record when the attack started, how long it lasted, the location and severity of pain, associated symptoms, possible triggers, medicines taken, and the response to treatment. For children, recording school absences and growth concerns may also help.

The clinician may review whether the diagnosis still fits, whether tests are needed, and whether preventive treatment is helping. The treatment plan may need adjustment as a child grows or as symptoms change.

Contact a clinician promptly for persistent vomiting, reduced urination, unexplained weight loss, pain that regularly wakes the person, ongoing pain between attacks, fever, blood in stool, or a major change from the usual pattern. Emergency symptoms, including confusion, difficulty waking, severe dehydration, bloody or green vomit, or sudden rapidly worsening pain, require immediate care rather than routine follow-up.

Sources

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