

# Abdominal pain (pediatrics)

Abdominal pain is one of the most common symptoms that bring a child to the doctor. About 10-15% of school children (more often girls) suffer from recurrent abdominal pain, and 90-95% of them do not have an organic disease. **Warning signs** that indicate an organic origin of abdominal pain include: pain in a child younger than 4 years, pain located elsewhere than around the navel, radiating pain, pain that wakes the child at night, failure to thrive or weight loss, growth arrest or retardation, vomiting, fever etc.

## Types of abdominal pain

- according to course:
  - **acute** - sudden abdominal events;
  - **chronic**;
- by cause:
  - **organic**;
  - **functional** – functional dyspepsia, functional abdominal pain, irritable bowel, abdominal migraine;
- by character:
  - **visceral** (diffuse, dull, unable to determine localization);
  - **parietal** (sharp, localized), may originate from the abdominal wall, may have a vertebro-genic or metabolic etiology (e.g. diabetic ketoacidosis - so-called diabetic pseudoperitonitis, lead intoxication...);
  - **psychogenic** (we can determine this diagnosis only after ruling out other causes and evaluating the child by a psychologist).

## We ask about

- intensity of pain (we also evaluate from indirect signs such as the position of the child and the intensity of crying),
- the duration of the difficulties,
- localization (a small child is not able to localize the pain, older children localize it in the periumbilical area),
- possible triggering factor (diet, position, time of day, stressful circumstances),
- accompanying symptoms (temperature, nausea, vomiting, diarrhea, constipation, stool character, dysuria),
- time contexts are also important (especially in the case of psychogenic pain – e.g. pain only on school days).

## Infantile colic

- ill-defined problems in early infancy, affecting about 1 in 10 infants
- both breastfed and formula-fed babies suffer from them
- these problems usually disappear by 3 months of age

**clinical sign:** episodes of marked irritability and abdominal pain with leg elevation

- they are tied to food, they appear in the second half of feeding, they stop after eating

-worse in the afternoon and evening

-they are accompanied by borborygms ("tummy growling") and flatulence

**examination:** exclusion of other causes (hunger, thirst, urinary tract infection, otitis)

-sometimes the cause is cow's milk or lactose intolerance

**therapy:** in breastfed children, it sometimes helps to remove milk from the mother's diet (we then have to supplement her with calcium)

-hospital care – only in case of protracted or severe problems, failure to thrive and very anxious parents

**diff. dg:** in very strong pains, it can be intussusception (intussusception) - classic triad: 1. colicky pains, 2. intussusception tumor in the abdomen, 3. stools in the form of blood-stained mucus (only in about 20%)

## Functional recurrent (seizure) abdominal pain

- definition: at least 3 episodes of abdominal pain within 3 months
- it is a functional disease that has a paroxysmal character
- pain limits the child in his natural activity
- they are seen in about 10-15% of children, more often in girls
- they most often affect children aged 4–16 years, usually starting at 5–8 years
- mental and physical stress, genetic predisposition, anxiety, impenetrability, low self-esteem contribute to the development...

## Clinical sign

- children localize the pain periumbilically or in the central epigastrium
- the pain does not radiate anywhere, it has a paroxysmal character
- it is independent of food, stool and general activity of the child, it does not appear at night

## Diagnosis

- is based on a thorough family and personal anamnesis, typical clinical sign, normal physical findings (including rectal examination), normal laboratory values and auxiliary examinations - an organic cause must be excluded
- the following examinations must be within normal limits: **blood** (complete KO, FW, urea, creatinine, bilirubin, aminotransferases, amylase, glycemia, IgA against transglutaminase and endomysium, lipids, ANCA, ASCA), urine (chemically, sediment, quantitative bacteriuria, screening for porphyrins), stool (occult bleeding, H. pylori antigen, parasitology, calprotectin)
- ultrasound of the abdomen and kidneys
- for girls event. gynecological examination
- lactose malabsorption can be detected from the anamnesis or elimination test

## Differential diagnosis

- the following symptoms testify against this diagnosis - very well-localized pain elsewhere than around the navel, radiation, pain waking the child at night, weight loss, growth retardation, vomiting, diarrhea or constipation, and systemic symptoms such as fever, arthralgia, exanthema, anemia...

## Therapy

- treatment is long-term and requires good cooperation between the doctor and the child and the parents
- the basis of the treatment is an interview with the parents - it must be emphasized that the pain is real, that it is caused only by the motor activity of the digestive tract with increased sensitivity to normal or stressful stimuli
- we assure them that no organic disorder has been demonstrated
- we point out that the parents must support the child, not the pain
- regular school attendance is required!
- sometimes the help of a psychologist or psychiatrist is appropriate
- the effect of pharmaceuticals is not proven! - by giving "we reassure the patient in illness"
- **prognosis:** in 30-50% the problems disappear, in 30-50% they persist into adulthood (headaches, menstrual problems, back pain)

## Recurrent abdominal pain associated with functional dyspepsia

- or the so-called upper type dyspepsia, a special form of functional abdominal pain
- **clinical picture:** nausea, bloating, belching, twisting in the stomach, hiccups, regurgitation of stomach contents, burning behind the sternum
- **diff. dg:** we always have to exclude an organic cause (mainly peptic ulcer, esophageal reflux, *Helicobacter pylori* gastritis)

## Recurrent abdominal pain associated with symptoms of irritable bowel syndrome

- or so-called dyspepsia of the lower type
- more common in adolescents
- **clinical sign:** alternating constipation and diarrhea, abdominal pain (relieves after defecation), mucus in stool, urgency, flatulence, feeling of incomplete emptying
- **diff. dg:** mainly idiopathic intestinal inflammations; in case of positive occult bleeding, we always indicate a colonoscopy

## Pancreatitis

Pancreatitis is an autodigestive inflammatory process of the pancreas that can spread to surrounding tissues and distant organs. The disease is accompanied by an increase in amylase and lipase in the serum and an increase in amylase in the urine. It is divided into acute and chronic.

## Links

### Related articles

- Nespecifické střevní záněty
- Celiakie
- Kojenecká kolika

## Reference

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