

SOME DIFFERENTIAL DIAGNOSTIC FOR ABDOMINAL PAIN SYNDROME IN CHILDREN

Gulbahar Geldiyeva,

*Candidate of Medical Sciences, Head of the department of Pediatric Surgery,
State Medical University of Turkmenistan named after Myrat Garryyev*

Maya Annanurova,

*Candidate of medical sciences, head of the department of Pediatrics postgraduate study,
State medical university of Turkmenistan named after Myrat Garryyev*

Tair Orazov,

*Assistant of the department of Pediatric surgery,
State medical university of Turkmenistan named after Myrat Garryyev*

Halym Halymov,

*Trainee teacher of the department of Pediatric surgery,
State medical university of Turkmenistan named after Myrat Garryyev*

Abstract

The scientific article is devoted to the study of some differential diagnostic criteria for abdominal pain, often encountered in pediatrics and pediatric surgery. Thus, it has been proven that abdominalgia occurs in many diseases. This group of children must be hospitalized in a hospital, and children under 5 years of age, regardless of the diagnosis of surgical pathology, must be hospitalized in the surgical department.

Keywords: pediatric surgery, pediatric, abdominal pain, immediate, acute appendicitis in children, peritonitis.

Relevance. Abdominalgia in children is a common reason for visiting a doctor and one of the main reasons for emergency hospitalization (Пыкова, Ватолина, 2001; Харченко, Родонежская, 2003). An acute and interdisciplinary problem in pediatrics and pediatric surgery is acute abdomen. Studies on the epidemiology of abdominal pain in children are scarce. Based on etiology, there are two groups of causes of abdominal pain: intra-abdominal and extra-abdominal (Бенца, 2003; Харченко, Родонежская, 2003; Щупелькова, Драпкина, Ивашкин, 2002).

It is also important to divide abdominal pain into organic and functional. It should be noted that 90% of children with abdominal pain do not have an organic disease, and only in 10% of cases it is possible to establish an organic cause of abdominal pain (Пыкова, Ватолина, 2001; Харченко, Родонежская, 2003; Щупелькова, Драпкина, Ивашкин, 2002).

Thus, given that abdominalgia occurs in many diseases, in children, especially under 5 years of age, it can serve as an indication for emergency hospitalization not only if surgical pathology is detected, but also if it is suspected. Based on the available literature data and our own observations, we came to the conclusion that this study is relevant and timely.

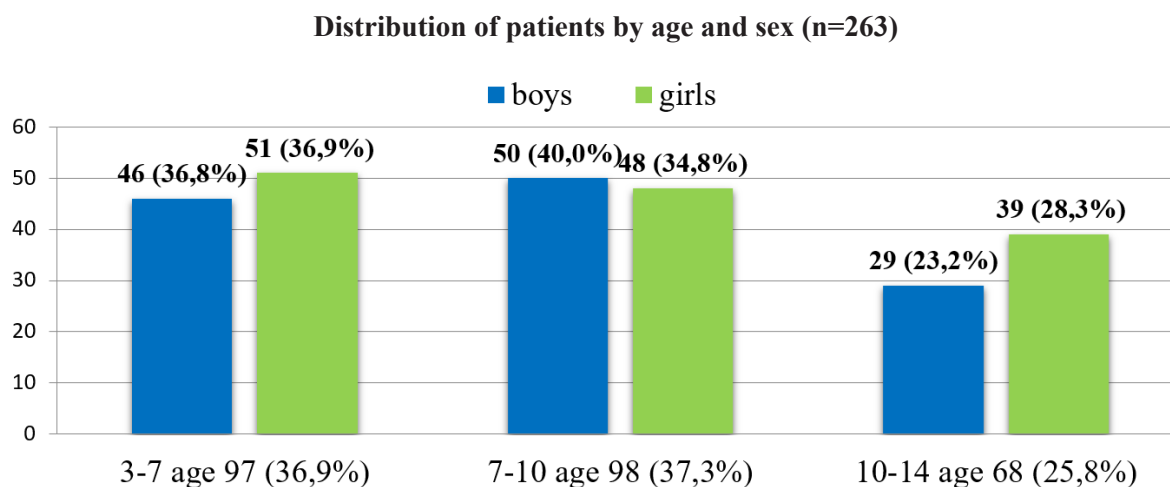
Purpose of the study: To study the causes and some diagnostic criteria of abdominalgia in children.

Materials and methods: For the period 2020–2023yy. At the Scientific and clinical center of maternal and child health care at the State Medical University named after Murad Karryev and Scientific and clinical center of maternal and child health care, an analysis of 263 case histories of

G. Geldiyeva, M. Annanurova, T. Orazov, H. Halymov Some differential diagnostic for abdominal pain syndrome in children

children from 3 to 14 years old, hospitalized with a diagnosis of suspected acute appendicitis, was carried out. The observed children were divided by age and gender (Diagram 1).

Diagram 1



As you can see from the diagram, girls prevail among children. Abdominalgia is often diagnosed in preschoolers and children of primary school age.

Clinical characteristics were studied in children (table-1).

Table 1

Clinical characteristics of pain (n=263)

Characteristics of pain	Abs.	%
Characteristics of pain:		
Flying pains	104	39,5
Undefined	10	3,8
Sabbing pains	28	10,6
Spasmodic pains	98	37,3
General pains	23	8,8
Localization:		
Vague	83	31,5
Paraumbilical region	93	35,0
Right hypochondrium	15	5,7
Lower abdomen	73	27,8
Duration of the pain:		
Up to 1 hour	156	59,3
1-2 hours	58	22,1
Long-lasting pain	49	18,6
Intensity:		
Weak intensity	12	4,6
Moderate	130	49,4
Severe	121	46,0
Connection with food:		

Was not noted	146	55,7
Before going to bed	29	11,0
Before eating	25	9,5
After eating	44	16,7
At night	19	7,1
Recurrent pains (n=132)		
Frequency		
Daily	19	14,3
Several times a week	24	18,2
Several times a month	89	67,5
Disappearance pain:		
Disappearance independently	98	74,2
After taking food	13	9,8
After taking medication	15	11,4
At rest	6	4,6

Children with abdominal pain also underwent additional examination. A general blood test revealed moderate leukocytosis and a shift in the leukocyte count to the left in 78,6% of cases, which confirms the presence of an inflammatory process.

To exclude acute intestinal obstruction, a plain radiography of the abdominal cavity was performed in 32,4% of cases. If the disease is present, the image will show horizontal levels of liquid - Kloiber cups. Fibrogastroscopy was performed in 48,4% of cases, of which 95,6% were diagnosed with chronic inflammatory diseases of the gastrointestinal tract.

Ultrasound examination (US) plays a huge role when it is necessary to differentiate abdominal pain syndrome in children. In some cases, children were sent to specialized departments: if changes were detected in urine tests, children were sent to the nephrology department with a diagnosis of urinary tract infection; if pathological changes were detected in girls were sent to the gynecology department) girls. A separate group consisted of children with infectious diseases (ARVI (Acute respiratory viral infection), intestinal infection, etc.).

Ultrasound examination (US) of the abdominal organs was performed in 97,3% of cases. The frequency of detected changes during ultrasound is presented in Table 2.

Table 2

Diseases detected by ultrasound

Diagnosis	Number of patients	%
Inflammatory gynecological diseases	34	13,4
Pancreatic lesions	38	14,8
Acute appendicitis	47	18,3
Biliary dyskinesia	41	16,1
Pyelonephritis	21	8,2
Kidney development abnormalities	12	4,7
Nephrolithiasis	13	5,0
Hepatitis cholecystitis	21	8,2
High flatulence	24	9,4

No pathology detected	5	1,9
Total	256	100

On ultrasound, the most common pathologies were acute appendicitis and biliary dyskinesia (Figure 1).



Figure 1. Girl 13y. biliary concernment

In the practice of emergency surgery, acute appendicitis occupies a dominant position. The diagnosis rate is 2/3 out of 1000 applicants (Бенца, 2008; Харченко, Родонежская, 2003; Щупелькова, Драпкина, Ивашкин, 2002).

Acute appendicitis had a fairly clear echographic picture, but the atypical location of the appendix (in particular, retrocecal) significantly limited the possibilities of echographic diagnosis.

The vermiform appendix with inflammatory changes was visualized as an oval-shaped structure with clearly differentiated layers (Figure 2).

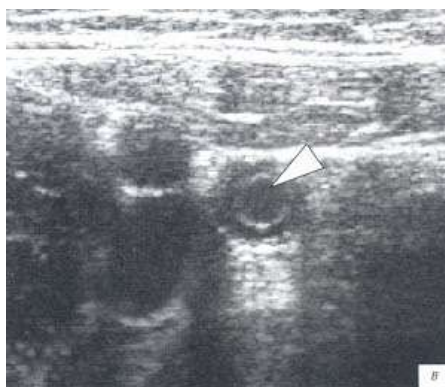


Figure 2. Acute appendicitis. Its diameter is from 8 mm and above. In isolated cases, coprolites were visualized in the lumen of the process. Often in children, a small amount of unfixed fluid component was detected in the projection of the small pelvis.

The urological diseases identified were numerous, and within the framework of this study there is no point in trying to present in detail the entire variety of pathologies. We will limit ourselves to listing the identified diseases: pyeloectasia – 21, ureterohydronephrosis – 2, renal duplication – 4, renal aplasia – 4, horseshoe deformation of the kidneys – 1, cystic dysplasia of the kidneys – 3, renal dystopia – 3. Approximately 2/3 of the patients were discharged home with a recommendation for observation from a specialist at your place of residence (doubling kidneys, anomalies in the position, number and relative position of kidneys, pyeloectasia, single small cysts, etc.). The remaining children

G. Geldiyeva, M. Annanurova, T. Orazov, H. Halymov Some differential diagnostic for abdominal pain syndrome in children

needed transfer to a specialized department, examination and determination of further management tactics.

Thus, abdominal pain in children is caused by a variety of etiological factors and pathophysiological mechanisms. Any child's complaint about abdominal pain requires an attentive attitude. Correct and quick interpretation of abdominal pain is a responsible task for the doctor, since this may be associated with the need to carry out emergency measures. This problem is often multidisciplinary in nature and requires the coordinated work of a pediatrician or family doctor, a pediatric gastroenterologist, a pediatric surgeon, a pediatric gynecology, a child psychologist, and other specialists.

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