ÇOCUK POLİKLİNİĞİNE KARIN AĞRISI ŞİKÂYETİ İLE BAŞVURAN ÇOCUKLARIN DEĞERLENDİRİLMESİ

Evaluation of The Child with Abdominal Pain Admitted to Children Outpatient Clinic

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ÖZET

Amaç: Bu calışmada, karın ağrısı şikayeti ile hastaneye başvuran çocuk hastaların karın ağrısı nedenlerini, eşlik eden semptomları, istenen tetkiklerin ve etken patojenlerin belirlenmesi amaçlandı.

Gereç ve Yöntem: Bozok Üniversitesi Tıp Fakültesi Genel Pediatri polikliniklerine Aralık 2014- Haziran 2015 tarihleri arasında karın ağrısı yakınmasıyla başvuran çocuk hastaların demografik ve klinik özellikleri, eşlik eden semptomlar, hastalardan istenen tetkikler ve değerlendiren hekimlerin koyduğu teşhisler açısından standart bir form üzerinden kayıtlar tutularak prospektif olarak değerlendirildi.

Sonuçlar: Çalışmaya toplam 3-18 yaş arası 195 çocuk hasta alındı. Hastaların yaş ortalaması 9.1 idi. Hastaların % 53,8'u (n=105, ort yaş:9.74y) kız iken, % 49.2'u (n=96, ort yaş: 8.41y) erkekti. Hastaların 84'u (%43) 3-5 yaş, 71'u (%36.4) 6-11 yaş, 40'u (%20.5) 12-18 yaş arasında idi. Hastaların % 28.2'in de (n=55) karın ağrısı ile beraber bulantı-kusma olduğu görüldü. Karın ağrısı ile birlikte görülen diğer yakınmalar; % 27 ateş, %24.6 öksürük, %24.1 boğaz ağrısı, %21.5 ishal, %11.7 kabızlık, %10.2 sık idrara çıkma, %9.2 disüri, %7.6 anal kaşıntı idi. Karın ağrısı nedenleri arasında en sık akut üst solunum yolu enfeksiyonu (% 22.9) ve kabızlık (%17.5) bulundu.

Tartışma: Çocukluk çağı karın ağrılarında üst solunum yolu infeksiyonuna sık rastlanmaktadır. Çocuklardaki karın ağrıları değerlendirilirken daha ayrıntılı öykü ve fizik muayene ile tanı konmalı ve gereksiz tetkiklerden kaçınmalıdır. Böylece hem hekim hem de hasta için vakit kaybı olmayacak ve sağlık giderlerinde gereksiz maliyet artışından kaçınılmış olunacaktır.

Anahtar kelimeler: *Çocuk; Karın ağrısı; Üst solunum yolu enfeksiyonu*

ABSTRACT

Aim: In this study, the causes, accompanying symptoms, required tests, and causative agents were aimed to determine in the children with abdominal pain admitted to clinics.

Materials and Method: At Bozok University School of Medicine General Pediatrics Clinics between December 2014 - June 2015 between; demographic and clinical characteristics of pediatric patients presented with abdominal pain and associated symptoms, the required tests and the diagnosis were recorded through a standard form and was prospectively evaluated.

Results: A total of 195 patients between 3-18 years old were included in the study. The mean age of the patients was 9.1years. 53.8% of patients (n = 105; mean age: 9.74y) were female, 49.2% (n = 96, mean age: 8.41y) were male. 84 of the patients (43%) of 3-5 years, 71 (36.4%) aged 6-11 years, 40 (20.5%) were between 12-18 years of age. In 28.2% of patients (n = 55) nausea and vomiting was observed with abdominal pain. Other symptoms associated with abdominal pain were; 27% fever, 24.6% cough, 24.1% sore throat, 21.5% diarrhea, 11.7% constipation, 10.2% frequent urination, 9.2% dysuria, 7.6% anal itching. The most common cause of abdominal pain was acute upper respiratory tract infection (22.9%) and constipation (17.5%).

Discussion: Upper respiratory tract infections are common seen in childhood abdominal pain. Abdominal pain in children should be diagnosed with a more detailed history and physical examination in evaluating and avoiding unnecessary tests. Thus,it will be avoided both loss of time for both physicians and patients and increased unnecessary cost.

Key words: *Children; Abdominal pain; Upper respiratory tract infection*

INTRODUCTION

Abdominal pain in children is a common complaint. Abdominal pain is often caused by the simple reason resolved spontaneously or with treatment, while a smaller portion of the emergency diagnosis and surgical or medical problems requiring treatment is determined in children. With detailed history and careful physical examination; surgery, medical treatment or simple diseases that require follow-up treatment should be tried to be distinguished. Most of the signs and symptoms in childhood (fever, vomiting, abdominal pain, diarrhea) due to the lack of original and difficulties in physical examination, medical diseases or surgical problems are not always simply or easily distinguished. Although there is most often good clinical course of abdominal pain, rapid diagnosis and treatment can be vital in a little portion (1-4).

In this study, with the admittance of abdominal pain complaints ; the causes of, accompanying symptoms, pathologic findings on physical examination determined by evaluating physician ,required tests and the diagnosis of the patients were evaluated.

MATERIALS AND METHODS

A total of 195 patients in the 3-18 age range, presented with abdominal pain to pediatrics outpatient clinic at Bozok University School of Medicine, between on December 2014-June 2015 were evaluated. Patients with traumatic abdominal pain were not included in this study. Detailed information about the purpose and scope of the study were given to families of sick children will be enrolled in the study and obtained the informed consent forms signed by the parents.
Patients with “abdominal pain” complaints and / or equivalent complaints are included in the study. Detailed history of the patient, anthropometric measurements, physical examination and laboratory investigations were done. Patients were evaluated according to onset of pain, shape, intensity, location, time, accompanying symptoms to pain. Bilious vomiting, hematemesis, bloody stool, local tenderness, abdominal distention, rebounds, palpable abdominal mass, swelling or pain in the inguinal region were assessed by the children’s surgery.

Records about the patient were kept through a standard form. Each patient was evaluated by a doctor in the clinic that she/he admitted. A standard form was used to collect data. In the form there were; filing date, name, last name, gender, year of birth, age, height, weight, address, complaint, duration of complaint, temperature, pulse, respiratory rate, when abdominal pain started, pain description, localization, pain time, distribution during the day, meal-relationship, analgesic response, drugs used for continuous, eating habits, daily number of bowel movements, stool, the color of the mucus and the presence of blood, if there were complaints in other family members, fever associated with abdominal pain, vomiting, nausea, diarrhea, painful urination, cough, sore throat, itching in the anal region, symptoms and physical signs, differential diagnosis, and laboratory tests.

Abdominal pain less than three days are regarded as acute abdominal pain; three, or those with more attacks of abdominal pain affecting daily activities for at least three months were considered as chronic abdominal pain (5,6). Functional abdominal pain was classified according to Rome III criteria (7). Statistical analysis was done with SPSS 18.0 software package. Chi-square test and t test was used for statistical comparisons and p value <0.05 was considered indicate statistical significance

RESULTS

A total of 195 pediatric patients 3-18 years of age were included in the study. The mean age of the patients was 9.1 years. 53.8% of patients (n = 105; mean age: 9.74y) were female, 49.2% (n = 96, mean age: 8.41y) of were male. 84 of the patients (43%) of 3-5 years, 71 (36.4%) aged 6-11 years, 40 (20.5%) were between 12-18 years of age.

When the patients were evaluated according to weight and height percentiles, weight in 15 (7.6%) patients and size in 9 (4.6%) patients were less than 3 percentile. Of the 15 patients body weight less than 3 percentile diagnosed with chronic gastroenteritis.

The pain localizations were; 30.7% of at all abdomen , 33.8% of at waist circumference, 9.2% of on epigastric region, 3% of in the right lower quadrant, 3% of in the lower left quadrant , 6.1% of in bilateral inguinal region, suprapubic pain in 7.6% of, and at 6.1% of the location of pain could not be determine.

In 78.4% of the patients at least one complaint was accompanied with abdominal pain. In 28.2% of patients (n = 55) nausea and vomiting was with abdominal pain. Other symptoms associated with abdominal pain; 27% fever, 24.6% cough, 24.1% sore throat, 21.5% diarrhea, 11.7% constipation, 10.2% frequent urination, 9.2% dysuria, 7.6% anal itching (Table 1).

Table 1. Distribution of symptoms associated with abdominal pain

Accompanying symptoms	%	n
Nausea and vomiting	28.2	55
Fever	27	53
Cough	24.6	48
Throatache	24.1	47
Diarrhea	21.5	42
Constipation	11.7	23
Frequent Urination	10.2	20
Dysuria	9.2	18
Anal itching	7.6	15

The most frequent causes of abdominal pain were acute upper respiratory tract infections (22.9%) and constipation (17.5%) (Table 2). In the study, 71.7% of abdominal pain in children (n = 140) were acute, 28.2% (n = 55) of were found to be chronic. While 52% of girls had acute abdominal pain, 48% of were boys. 65% of girls and 35% of boys had chronic abdominal pain. When a comparison between the sexes in terms of duration of abdominal pain; chronic abdominal pain in girls were found to be significantly higher than boys ($p < 0.05$). Pathological findings on physical examination were; 24.5% tonsillar hypertrophy and hyperemia, 18% abdomen tenderness was seen. There were no differences in terms of significant pathologic findings on physical examination between girls and boys ($p > 0.05$). Of the 36 (16.2%) patients followed with a diagnosis of urinary tract infection, 20 (55.5%) were female and 16 (44.4%) were male. One patient had grade-2 and again one had grade-1 vesicoureteric reflux. Of these patients; 19 had (52.7%) E. coli, 12 had (33.3%) Enterobacter, 6 had (16.6%) Klebsiella in the urine culture.

The desired frequency tests were respectively; abdominal ultrasonography (USG) (25%), standing directly radiography (20%), urinalysis and urine culture (15%) and stool microscopy (10.1%), respectively. A pathology revealed in the 25's% of abdominal ultrasound and the mesenteric lymphadenopathy was most common (20%).

Table 2. Distribution of patients according to the diagnosis of abdominal pain

Diagnosis	%	n
Acute upper respiratory tract infections	22.9	51
Constipation	17.5	39
Urinary tract infection	16.2	36
Functional pain	12.1	27
Diarrhea	14.8	33
Gastritis	9.4	21
Parasitosis	6.7	15

DISCUSSION

Abdominal pain of childhood is one of the most common reason for admission to hospital. Good understanding of a variety of species of abdominal pain and its etiology is important for the strategy of medical or surgical treatment. In the first approach "acute abdomen" should be excluded, with unnecessary tests time should not be lost as it is very valuable for both doctors and patients (8,9).

Childhood abdominal pain has an important place among the causes of referring to the clinic. Therefore, good assessment and proper recognition of the symptoms of abdominal pain, which can occur for various reasons, is very important. Abdominal pain in children should be evaluated together with; the patient's age, sex, localization of the pain, duration of symptoms and physical findings (10).

When determining the cause of abdominal pain, the disease to be seen at different frequencies in different ages and symptoms can vary with age, so the age factor should be taken into account (9). The gastroenteritis, intussusception, and constipation in infants, gastroenteritis, constipation and appendicitis in young children, and appendicitis, constipation and functional form in school-children are the first three rows of acute abdominal pain (9,11,12).

This study found upper respiratory tract infections as the most common cause of abdominal pain in children. In the study of Erkan et al. (2) in 311 patients between 2-16 years admitted with acute abdominal pain into the emergency servises; the most common five reasons were upper respiratory tract infection (19%), unknown (18%), acute gastroenteritis (13%), constipation (10%) and urinary tract infections (9%) respectively. Taşar et al (13) found that 42.2% of patients had acute gastroenteritis, 9.2% of urinary tract infection, 9.2% was reported as upper respiratory tract infection. Tekgündüz et al (12) in their study; upper respiratory tract infection was in 18% of , gastroenteritis in 9.5% of , urinary tract infection in 7.5% of, and constipation was reported as 5.5%. Leung and Sigalette (14) found gastroenteritis as the most common internally cause of acute abdominal pain, and appendicitis the as surgical reason. Akova et al found that the most common cause of abdominal pain were acute gastroenteritis, urinary tract infection and constipation in children between 2-11 years old. Çayır et al detected the most common cause as upper respiratory tract infections similar to our study. We found upper respiratory tract infections as the most common reason of abdominal pain. It may be due to performing current study during the winter months.

Patients in the pediatric age group, there are some symptoms associated with abdominal pain (8). In the study of Tekgündüz et al (12) the symptoms associated with abdominal pain were, nausea (56.2%), vomiting (54.7%), fever (23.4%), respectively. Taşar (13) in his study, the most common symptoms were vomiting (34%), fever (29%) and diarrhea (20%), respectively. Scholar et al (5) in their study the common symptoms were again fever (65%), vomiting (42%), respectively. Akova et al (15) found the diarrhea most common, Çayır et al (16) found vomiting. In our study, accompanying with the literature the most frequent symptoms were nausea and vomiting, fever, cough. Our most common cause was upper respiratory tract infections which was consistent with the diagnosis of abdominal pain symptoms.

Recurrent abdominal pain when organic pathology not detected; they should be considered as functional abdominal pain. Of functional abdominal pain in childhood has been reported to be between 55-96% (17). Functional abdominal pain is observed 12% in our study and that is lower than the literature.

The prevalence of urinary tract infections in childhood is; 2-3% at pre-school , 1-2% in girls of school age and 0.03-0,2% in boys and often present with abdominal pain (18,19). In this study of patients with abdominal pain, urinary tract infection rate was 16%. In our study, constipation was the 17.5% cause of the patients coming to our clinic with abdominal pain and it was the second reason. In the UK carried out a study; the constipation symptoms has been reported in 34% of school-age children (20). Helicobacter pylori cause recurrent abdominal pain. Doğan et al (21) in their study on 121 patients admitted with sustainable digestive system complaints; helicobacter pylori antigen in feces was evaluated positively in 61.1% of before endoscopy. In this study, in patients followed with recurrent abdominal pain, gastroesophageal reflux, functional abdominal pain, acute gastritis, peptic ulcer and unknown etiology, helicobacter pylori antigens was found 35% positive on the stool.

With acute, chronic or recurrent pain in children and without other pathology as the cause of abdominal pain often mesenteric lymphadenitis have been reported (22,23). In addition, the second most common cause of right lower quadrant pain in children especially, it is stated that mesenteric lymphadenitis (24). Mesenteric lymphadenitis was observed in 20% of patients required ultrasound. The reason for the frequent mesenteric lymphadenopathy may be due to high incidence of upper respiratory tract infections.

In our study, it is noteworthy that we wanted abdominal ultrasound from one of the four patients. Moreover, abnormalities were detected in only 25% of the patients that abdominal ultrasound desired.

Consequently, although this study found the most common cause of abdominal pain in childhood as upper respiratory tract infections, it was seen that the majority of physicians wanted further investigation. This leads to a waste of time for both the patient and the physician, and also leads to unnecessary cost increases in health care costs.

Study limitation

In our hospital, such tests for celiac, cow's milk protein allergy, FMF gene mutation cannot be done; and if these diseases thought in the differential diagnosis this patients could not be included in the study.

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