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Research Article

**AN OBSERVATIONAL STUDY ON THE RECURRENT
ABDOMINAL PAIN IN CHILDREN**

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Abstract:

Objective: The purpose of this research work is to know about the reasons of Recurrent Abdominal Pain in children and to find suggestions to overcome this trouble.

Methodology: This is an observational study and it was carried out in Indus hospital Lahore and the duration of this study was from August 2015 to July 2018. Children from 2 to 15 years of age with recurring belly pain were selected for this research. Total participants of the study were 150 children. A special document was designed for the collection of data. Blood, urine and fresh waste of the participant children was examined. The patients of the study who were suffering of upper belly pain without or with signs in the stomach abnormality were assessed for by checking of blood plasma. Endoscopy testing and some other tests like chest X-ray were carried out for patients who were found positive in Elisa method. All the participants were checked after two weeks for 90 days and special medication was carried out as per the cause of the disease.

Results: One third of the participants were females and average age of the participants was 8.9 years. The average duration of the sign was sixteen months. Epigastric pain was found in sixty-five percent sufferers, complete belly pain was found in twenty-five percent patients, pain near the sexual organs was discovered in five percent patients and lower abdomen pain was found in five percent sufferers. Thirty-three percent infections were caused by Protozoa as giardiasis and amoebiasis which was the most common cause. Thirty-one percent was caused by Helicobacter pylori. 15 cases have to face endoscopy as treatment. The removal of the tissue of the patients to check the illness was positive in all the participants for H. Pylori. Worms were found in 13% patients. Gastro oesophageal reflux was found in ten percent patients. There were some other causes of the pain in different percentages of the patients like infection in urine path, constipation etc.

Conclusions: One of the common illness problem in the children is recurring belly pain. Its treatment is not too much expensive and it can easily preventable with medical check-ups and laboratory testing. Healthy food, clean surroundings, germ free water with good quality and personnel cleanliness can hinder the cause of infection to spread.

KEY WORDS: Giardiasis, Abdomen, Diagnoses, Infection, Worms, Healthy Food, Laboratory, Pylori, Gastro Oesophageal Reflux.

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INTRODUCTION:

If the children have at least three periods of belly pain during last 3 months which are very harsh to hinder their normal life then they suffering of Recurrent Abdominal Pain [1, 2]. Thirty-four percent population of the world is affected by this very disease and rate of this disease in the children who are school going is from ten to twenty percent [3]. It is very common disease which is diagnosed by most doctors in general. The causes of this disease are different depending upon the place of living and surrounding conditions.

The reasons of this disease Recurrent Abdominal Pain in Pakistan are not well and considered as normal abdomen pain. With the diagnoses of the new methods including assessment by endoscopy for the discovery of the reasons of this very disease and the infected organ discovery is possible now [1]. According to this observation, it is acknowledged that disease curing causes are very common which is opposite to the previous ideas [3, 4]. It is also concluded that the causes of this disease and rate of this very disease varies according to the geography. Alertness among the doctors about the new diagnoses methods of the disease and the occurrence of the reasons of this disease in their area may be beneficial for the better treatment of the patients. This research work was carried out to know about the reasons of this disease and suggestions should be made to tackle this problem. Other reason of this research was to devise the administrating instructions for the prevention of this disease.

METHODOLOGY:

All the participants were aged from 2 to 15 years suffering of recurring belly pain. This research work was carried out at Indus Hospital Lahore and the duration of the research was from August 2015 to July 2018. A Performa was designed to document the information of the patients including disease background history and complete evaluation. The interrogation with the help of fresh stool, urine and blood testing was carried out in all the patients. The participants suffering of pain in the upper abdomen part were assessed by the testing of plasma of blood

H Pylori. Endoscopy was carried out on the patients who were found positive in Elisa method. Some other medical tests as X ray of belly and chest, diet study, abdomen ultrasonography and EEG assessment were also carried out in medical assessments. All the sufferers were evaluated after every two weeks for 3 months and special treatment was recommended according to the discovered cause of the disease. The sufferers who were suffering of serious belly pain or serious abdomen infection and sufferers who cannot visit the first two weeks follow up visit were excluded from this research work.

RESULTS:

Children who came under the conditions of recurrent abdomen pain were 150 and completed the check-ups according to the protocol of the research work. One hundred and one were the female participants and fifty-one were the male participants of this research work. The average age of the patients was 8.9 years. The average duration of the signs of this disease was sixteen months and its range was 3 months to 7 years. Epigastric pain was found in 65% patients. Pain in the complete belly was found in 25% patients, pain in the lower parts near to the sexual organs was found in five percent patients and five percent participants were found with pain in the lower part of abdomen.

33% infections were caused by Protozoa which was the most common infection. It was pursued by H. pylori which were thirty-one percent. The removal of the tissues for the diagnosis of the disease was carried out in fifteen patients after getting their willingness for endoscopy. Worms were found in thirteen percent patients with amoeba and giardia. Gastro oesophageal reflux was found in ten percent patients (which were discovered by endoscopy). Infection in the path of urine was found in five percent patients (which were discovered with the help of ultrasound and urine testing). Constipation problem was in three percent patients and ulcer diseases were two percent. Other related infections which were the causes of this disease were less than one percent as mentioned in Table-1.

Table-I: Causes Of Recurrent Abdominal Pain In Children (n=150)

Causes		No	Percentage
Giardiasis/ Amebiasis	Protozoal infections	48	33
	H. Pylori	46	31
	Worms (Asc. Lumb: E.V)	19	13
Mixed with Giarda / E. histolytica	Reflux Esophagitis	15	15
	UTI	8	5
	Chronic Constipation	5	3

Peptic Ulcer disease	3	2
Abdominal Epilepsy	1	0.6
Cholilithiasis	1	0.6
Ovarian Cyst	1	0.6
Ulcerative Colitis	1	0.6
Gastric Trichobezoar	1	0.6
Abdominal Migraine	1	0.6

There was not any non-organic reason was discovered in this research work as described in Table-2. All the sufferers were arranged according to the cause of the disease in them. Metronidazole for consecutive 7 days was used for the patients with giardiasis and tiple treatment (metronidazole, Clarithromycine, Omperazole) was used for the patients with H pylori. Special directives were given to the patients about healthy diet, good quality water, personal cleanliness and treatment related to the cause of disease in them.

Table-II: Causes Of Recurrent Abdominal Pain In Children According To Age

	2- 5 yr (n = 35)	5-10-yr (n =53)	>10 yr (n=62)	Total (n = 152)	Percentage
Non-Organic	--	--	--	--	--
Organic	35	21	28	150	
Giardia	17	13	19	48	33
H.Pylori	8	17	22	46	31
Giardia and other parasites	4	8	7	19	13
Reflux Esophagitis	2	8	5	15	10
Urinary tract infection	3	2	3	8	5
Constipation	2	2	1	5	3
Ulcer peptic disease	--	1	2	3	2
Abdominal Epilepsy	--	--	1	1	
Gall stones	--	1	--	1	
Ovarian cyst	--	--	1	1	
Ulcerative Colitis	--	--	1	1	
Gastric Trichobizoar	--	--	1	--	
Abdominal Migraine	--	1	1	1	

DISCUSSION:

Recurrent Abdominal Pain in the small age children is frequent trouble and a serious medical concern [1, 2]. Recurrent Abdominal Pain is found in 10% to 15% school going children. It is discovered that 34% people of the world especially children are affected with this disease [3]. This problem remained a serious medical problem [4]. Recurrent abdomen pain is a very common pain with causes of its initiation which depends upon the age of the patients and their geographical areas. This also depends upon the eating routines, personal cleanliness and social status [5].

The occurrence of this disease is very high in females as concluded by this research work, which is also concluded in different research studies carried out on the patients of same age group [6, 7]. The average duration of the signs was three months to seven years which shows that patients were under treatment for a long period of time due to non-discovery of disease. There is a long old list of the causes of this pain which can be compared with the new models to discover the new treatable method of this disease.

Infection by Protozoa was 33%; most frequent treatable reason discovered in this research work was also confirmed by studies performed in the

same field in subcontinent [7]. This infection causes diarrhea and Recurrent Abdominal Pain [7]. This infection can be identified by examining the fresh stool of the infected patients. *H. pylori* was another reason which was found treatable in this research work. Epigastric pain is the most frequent sign which has a strong link with the *H. Pylori* [8, 9]. Endoscopy is very important cause to overcome many reasons like reflux esophagitis of this disease [14]. Same type of research work carried out in Italy proved this cause reflux esophagitis as common as twenty-one percent [15]. Three percent patients of Recurrent Abdominal Pain in our research work were suffering of constipation. Ninety percent sufferers in our study were affected by this disease due to rough food [5, 16]. Food allergy is an organic cause of this disease of belly pain. Some other dangerous diseases related to Recurrent Abdominal Pain were not found in this research [20].

CONCLUSIONS:

Recurrent Abdominal Pain is the most common disease in the children. Experienced medical check-ups with laboratory testing are important to know the cause of this disease which are easily preventable and low costly. Healthy food, personal cleanliness habits, germ free water and clean surround environment can reduce the causes which are responsible for the spreading of this trouble in children.

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