



ORIGINAL RESEARCH PAPER

Paediatrics

PARENT'S PERSPECTIVE ON RECURRENT ABDOMINAL PAIN IN CHILDREN

KEY WORDS: Recurrent Abdominal Pain, irritable bowel syndrome, functional abdominal pain, organic causes .

Dr Aarti Agarwal Assistant Professor Department of Paediatrics ACS Medical College and Hospital Velappanchavadi , Chennai ,Tamil Nadu.

ABSTRACT

This study aims at catering views of parents on most common causes and treatments involved in Recurrent Abdominal Pain (RAP) in children. RAP is a common gastrointestinal complaint in children. Almost 10% school going children and adolescents are impacted by this . With the help of a little effective information it is easy to state that RAP is often considered as a functional pain. 5% to 10% of organic causes are also noticed in this disease. Fever, vomiting and blood in stool are the most common symptoms seen in those with organic causes , also history of urinary tract infection is important. Irritable bowel syndrome, functional dyspepsia, functional abdominal pain, and abdominal migraines are also part of the spectrum. There is 3 to 16% prevalence noticed in this disease. Emerging intestinal components are also present in these cases such as inflammation, microbiota and motility issues.

INTRODUCTION

Abdominal pain is one of the most common painful health problems in school-going children. Complex symptoms are present in RAP in children. Almost 10% school-aged children are affected by this disease. Along with this, 5 to 10% organic causes are noticed in RAP . 48% children have nonabdominal pain symptoms as well. Daily activities are also affected due to recurrent abdominal disease. It is important to collect proper information to know about the pathophysiology of abdominal pain in children.

Now-a-days, it is noticed that an increasing number of gastrointestinal diseases are occurring due to the presence of *Helicobacter pylori* (*H.pylori*) [1]. This factor was identified in 1980s. After that it was noticed that RAP is also increased with the presence of this bacterium . However , it was noticed that children of many developing countries are affected by this gastric mucosal disease, are completely asymptomatic. Positive urea breath test is conducted to maintain treatment of *H.pylori* bacterium disease. Rapid urea test or histology is also done to know about the successful treatment of *H.pylori* disease. However, proper and complete treatment is not highly beneficial, which is noticed in many cases.

Simple laboratory tests are conducted to collect information about the anaemia and other infectious disease. Along with this, erythrocyte sedimentation rate and C-reactive protein levels are done for infection and inflammation. Few other tests are done to narrow down the cause for RAP in children such as faecal ova and parasite testing, urinalysis for urinary tract infections, and faecal guaiac testing [2].

This is the main diagnostic workup for RAP. At times presentation of celiac disease is also noticed in children [3]. Few symptoms that are present include diarrhoea, vomiting, weight loss, dermatitis herpetiformis, anaemia and others. Tissue transglutaminase antibody testing is done to screen for celiac disease. This test provides essential information about the overall IgA level of patient. Along with this, duodenal biopsy is also conducted in those children who are positive on screening [4].

Screening for inflammatory bowel disease is also done with the help of faecal calprotectin testing [5]. 92% sensitivity is identified with the help of this screening test. Along with this, abdominal examination finding is also treated as an effective diagnostic workup. 37% children of RAP are treated with the involvement of Esophagogastroduodenoscopy . On the other hand, it is important to state that reflux esophagitis is also present in Esophagogastroduodenoscopy.

Improving quality of life is considered as the main strategy for treatment of RAP in children. Along with this it is also noticed

that validation of child's pain is maintained successfully with the involvement of proper and effective laboratory testing process. With the help of little effective information it is easy to state that lack of proper concern about the disease can increase the challenges in treatment.

Acid reflux is an important organic cause behind RAP. To solve this disease few effective drugs that are used increasingly are proton pump inhibitors, pantoprazole, and lansoprazole. These treatments can relief pain in more than 70% of people. Chronic constipation is also a common organic cause behind RAP in children [6].

High-performing dietary intervention, Reward system and parental education helps in treating chronic constipation. Along with this, manual disimpaction is also involved in treating it. These manual disimpaction involve enemas, suppositories, and others laxatives. Short term discontinuation of regular stooling habits along with the involvement of stimulant laxatives can also help. Polyethylene glycol that can help to maintain recovery of children from RAP. Use of polyethylene glycol is more effective and safe than non-polyethylene glycol laxative. Functional abdominal pain is also maintained successfully with the help of these treatments. Along with this, standard medical care is also implemented successfully to collect proper and effective information about the identification of abdominal pain [7].

METHOD AND MATERIALS

This prospective observational study was conducted in a 1000 bedded tertiary care hospital situated in urban area of Chennai ,Tamil Nadu following approval from our institutional committee.

The patients showing symptoms of RAP were enrolled in the study . RAP was defined as at least three episodes of pain that occur over at least three months and affect the child's ability to perform normal activities. A detailed history and clinical examination including anthropometry of enrolled children were done as per the pre-structured Performa . After due consent from parents , they were given a questionnaire to fill that had various questions pertaining to their knowledge around RAP. Questionnaire was provided in English and Tamil

Statistical Analysis:

Data was entered in MS Excel and analysed using SPSS 20 . Paired t test was used for comparison of means . Categorical variables were compared using nonparametric tests.

RESULTS

A total of 110 patients suspected to have Recurrent abdominal pain based on clinical presentation were enrolled in the study . Out of which 98 patients fitted in the criteria of RAP. 90

parents completed the questionnaire , rest 8 parents either did not respond appropriately or found the questions difficult to answer.

In the opinion of most parents Chronic constipation was a major reason behind RAP.

Table 1: Chronic constipation is an effective reason behind RAP.

Response of respondents	Number of respondents
Strongly disagree	10
Disagree	12
Neutral	8
Agree	25
Strongly agree	35

(Source: Created by author)

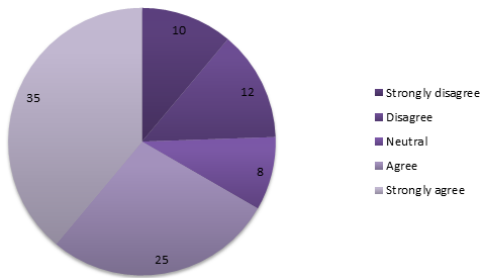


Figure 1: Chronic constipation is an effective reason behind RAP

(Source: Created by author)

This graph can provide all essential information about the role of chronic constipation as an organic cause of RAP of children. 10 and 12 respondents are respectively strongly disagreeing and disagree with this statement. On the other hand, 35 and 25 respondents are strongly agreed and agreed with this statement. 8 respondents are unable to provide any effective opinion about this .

Also most parents feel that RAP which is not functional and not relieved by common medicines can effectively be diagnosed by Esophagogastroduodenoscopy.

Table 3: Esophagogastroduodenoscopy diagnostic can maintain 37% children who have RAP disease.

(Source: Created by author)

Response of respondents	Number of respondents
Strongly disagree	9
Disagree	8
Neutral	3
Agree	33
Strongly agree	37

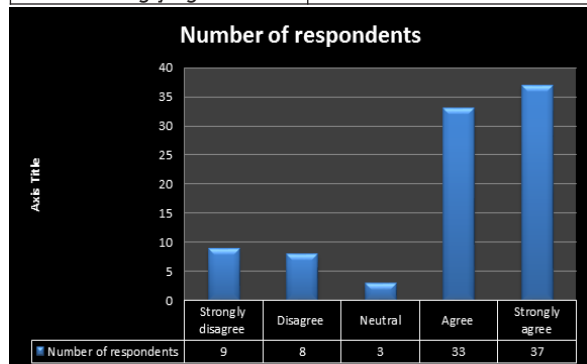


Figure 2: Esophagogastroduodenoscopy diagnostic can maintain 37% children who have RAP disease.

(Source: Created by author)

Above figure can state that Esophagogastroduodenoscopy therapy can maintain treatment of 37% RAP affected children. This statement is strongly disagreed and disagreed by respectively 9 and 8 respondents. 33 and 37 respondents are respectively agreed and strongly agree with this statement. 3 respondents are unable to provide any opinion about this .

DISCUSSION

This study and data analysis can provide effective information about the reason behind RAP of children [8]. Implementation of Esophagogastroduodenoscopy therapy can maintain RAP disease of children. Eosinophilic gastro enteritis is also maintained successfully with the help of this diagnostic activity. On the other hand, few effective organic reasons are also present behind RAP of children. Celiac disease, dyspepsia, acid reflux, chronic constipation and IBS are main organic reason behind RAP disease of children. However, cognitive behaviour therapy is also used increasingly to maintain the severity of this disease. Implementation of proper treatment method can justify the prevalence of this disease successfully. Along with this, high-performing screening method is also conducted to collect proper and effective information about abdominal pain related functional gastrointestinal disorders [9].

CONCLUSION

Based on this study, it is also concluded that chronic constipation is an important organic cause for RAP . Detailed history and proper examination along with few basic tests can help in treating most of the RAP cases. If the child is not responding to treatment it is essential to perform diagnostic tests like esophagogastroduodenoscopy to find out the cause and treat the child appropriately. Ignoring the pain would bring challenges in treating it.

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