

RECURRENT ABDOMINAL PAIN AND PSYCHIATRIC SYMPTOMS

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ABSTRACT

BACKGROUND

In developing countries, the commonest cause of recurrent abdominal pain (RAP) is non-organic/functional. There is a need to arrive at a conclusion about the psychiatric symptoms involved in the children presenting with nonorganic RAP.

The aim of this study is to determine cause of recurrent abdominal pain associated with functional impairment in children and adolescents along with psychiatric symptoms, disorder, anxiety and depression.

MATERIALS AND METHODS

Children and adolescents presenting with recurrent abdominal pain were interviewed through psychiatric scales and diagnosis of psychiatric involvement was confirmed through standardised psychiatric scales.

RESULTS

Out of 35 children studied, males were 17 (48.6%) and females were 18 (51.4%). The age wise distribution in years was 7–10 (23, 65%) and 11–15 (12, 34.3%). Out of 35 cases (27 cases), 77% showed symptoms of anxiety disorder, 51.4% showed separation anxiety, 37.1% showed generalised anxiety disorder, 25.7% showed social anxiety, 31.5% showed school phobia and 20% showed panic anxiety.

CONCLUSION

Approximately, 80% of children who present with functional RAP will have anxiety disorder and that 40% will meet the criteria for a depressive disorder. Cognitive behavioural psychotherapeutic intervention for RAP is useful in reducing symptoms of emotional distress.

KEYWORDS

Recurrent Abdominal Pain, Psychiatric Symptoms.

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BACKGROUND

Recurrent abdominal pain is defined as at least three attacks of pain in abdomen over a period of three months, for which no organic cause was identified. Recurrent abdominal pain in children was defined and identified because it was recognised that it was very common, very disruptive to families and most often this is in the absence of significant organic pathology. As recurrent abdominal pain is a presenting feature of many diseases, it is a condition comprising both organic and functional disorders and is therefore clinically challenging to diagnose and treat. As the functional component may be present it is important to investigate and manage the psychological factors because there is evidence suggesting that children with RAP have more anxiety and depression symptoms.¹

The family and the child with functional abdominal pain might worry about the inability to identify an organic cause, and the parents have to be explained in simple language that although the pain is real there is no underlying serious disorder.¹

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RAP is a common symptom in children; its prevalence is around 10%. An organic cause is found in few of these patients. However, differences in prevalence of organic disease are found depending on the population studied and criteria used. It may be as low as 5% in the general population and as high as 40% in paediatric gastroenterology patients. It occurs most commonly between ages 4 and 14 years. Some studies show within this age range peaks in incidence between 4-6 years and 7-12 years. Girls are probably affected more often than boys. Incidence appears similar in different socio-economic groups.¹ The diagnosis of RAP may differ in developing countries compared to developed countries as infective causes are more prevalent and inflammatory bowel disease is less common.

Cohort studies from India and Pakistan suggest that RAP is most likely to have an organic cause up to 82% cases.² However, other Indian cohort and a Srilankan cohort showed non-organic RAP is more prevalent i.e. 74 and 76% respectively.²

The time of intervention is often the single most important factor in determining the outcome.

In developing countries, the commonest cause of RAP is nonorganic/functional. There is a need to arrive at a conclusion about the psychiatric symptoms involved in the children presenting with nonorganic RAP.

Aims and Objectives

To determine recurrent abdominal pain associated with functional impairment in children and adolescents along with psychiatric symptoms, disorder, anxiety and depression.

MATERIALS AND METHODS

It is a study conducted on children and adolescents presenting with recurrent abdominal pain. Patients presenting with signs and symptoms of functional abdominal pain were identified and interviewed through psychiatric scales and diagnosis of psychiatric involvement was confirmed through standardised psychiatric scales, in the Department of Paediatrics in Shadan Institute of Medical Sciences, Hyderabad for a duration of 2 years.

Methods of Collection of Data

Inclusion Criteria

Children with recurrent abdominal pain were required to have three or more episodes of abdominal pain sufficient to interfere with activities or function in the previous three months.

Exclusion Criteria

1. Children who had recurrent abdominal pain symptoms associated with any physical disease e.g. epilepsy. Children exhibiting atypical symptoms indicative of explanatory physical disease.
2. Children whose laboratory findings suggest explanatory physical disease e.g. elevated ESR, anaemia, abnormal liver function test.

Sample Size

35 cases presenting with symptoms of functional abdominal pain.

Investigations

Routine investigations like haemoglobin%, CBP, ESR and specific investigations like LFT, Stool examination, CUE, RBS, ASO, Mantoux test, USG Abdomen, X-Ray, Serum Creatinine, Serum Cholesterol.

Procedure

Children and adolescents attending OPD with complaint of recurrent abdominal pain were identified, these patients were asked in detail about the history of presenting illness and all the symptoms and signs leading to the diagnosis of organic diseases were ruled out and they were made to undergo laboratory investigations and complete physical examination was done. Patients of recurrent abdominal pain with no organic involvement were taken in study. Patients with functional abdominal pain were interviewed through psychiatric standardised interview and clinical ratings of psychiatric symptoms were given.

The Scales used in Psychiatric Standardised Interview-

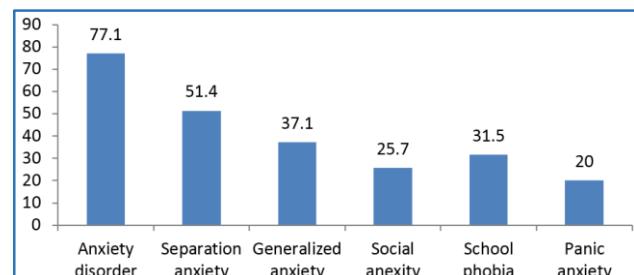
1. Paediatric symptom checklist (PSC).
2. Youth Paediatric symptom checklist (Y-PSC).
3. Depression - Center for Epidemiological Studies Depression Scale for children (COS-DC).
4. Self-report for Childhood Anxiety Related Emotional Disorders (SCARED).

RESULTS

Gender wise distribution of study population: No. of Children studied- Males 17 (48.6%) Females 18 (51.4%).

Age wise distribution of study population- No. of children in years 7–10 and 11–15 were 23 and 12 respectively.

Age wise distribution of study population in percentage- Age in years 7–10 and 11–15 was 65.7 and 34.3 respectively.



Self-report for Childhood Anxiety Related Emotional

Disorders (Scared)

CES-PC	No. of Cases	Percentage of Children Involved
Depression scale	16	45.7

Table 1. Center for Epidemiological Studies Depression Scale for Children

Psychiatric Symptom	Percentage of Involvement of Cases
Anxiety	77.1
Depression	45.7

Table 2. Comparison between Anxiety and Depression

No. of Individual, Mean (SD), Total Anxiety Score

Male- 17, 21, [11]

Female- 18, 28, [74]

Total Anxiety P Value- 0.033, t- 2.2, df- 33,

Standard Error- 3.154.

Statistically Significant.

DISCUSSION

Paediatric RAP is a significant public health problem and is commonly associated with functional impairment and with anxiety and depressive disorders, around 80% of children who presented with functional abdominal pain (RAP) will have an anxiety disorder and 40% will meet criteria for depressive disorders. Study results complement and expand existing literature documenting an excess of anxiety and depressive symptoms in children with RAP in the community^{3,4} and in specialty settings^{3,5} and are very much in keeping with those of Grarber et al⁵ who identified an anxiety disorder in 11 (85%) and major depressive disorder in 5 (38%) of 13 children with functional abdominal pain and those of Liakopoulou-Kairis et al⁵ who identified a psychiatric disorder in 82% of RAP patients. Study results were also consistent with earlier findings that childhood RAP predicts anxiety, depression and concerns about physical health in young adults. Study of the association between functional RAP and anxiety disorders, nevertheless has the potential to inform future treatment and prevention efforts and to direct the search for mechanisms underlying the observed non-random associations.⁶

Potential explanations for the strong observed association of RAP with anxiety disorders include unidirectional causal models i.e., one disorder causes the other and shared diathesis models i.e., the disorder share a common underlying risk factor or factors or are different aspects of a singular casual process as well as study artefact.⁶

Harm avoidance and related personality traits such as neuroticism and negative affect have been associated with behavioural inhibition, pessimistic worry, and fear of uncertainty, a tendency to respond to environmental challenge at lower thresholds and perhaps with greater intensity, vulnerability to anxiety and depressive disorders and functional gastrointestinal symptoms in adults.

Findings of heightened sensitivity to gut visceral sensations,³ excessive muscle tenderness and a lower pressure pain threshold³ in children and adolescents with RAP may prove to be the expression of a more generalised sensitivity to perceived novel or threatening stimuli.

Study results point out the relationship between the Paediatric functional RAP and psychiatric symptoms involved and it throws light on the questions like how to manage a case of functional abdominal pain RAP.

The clinician should first recognise that vast majority of children with functional RAP will have an anxiety or depressive disorder and that their management should also include the psychotherapy. There has already been two small randomised controlled trials of a cognitive behavioural psychotherapeutic interventions for RAP which found that reductions in symptoms of emotional distress were associated with concomitant decreases in abdominal pain across treatment⁴ providing some support for the notion that treatments that are proved to be efficacious for paediatric anxiety or depressive disorders such as cognitive behaviour therapy^{3,7} and some selective serotonin reuptake inhibitors^{3,8} may be worthy of study as future treatments for functional RAP.

The TCAs lack proven efficacy for paediatric anxiety and depressive disorders and are associated with problematic side effects, a low therapeutic index and a small but real risk of sudden death in treated children.⁹

The clinician should recognise the cause of functional RAP and manage the presenting problems by developing feasible and safe treatments for functional RAP that are capable of treating comorbid anxiety and depression and minimising the exposure to TCAs and other untested treatments.

CONCLUSION

Clinicians can expect that approximately 80% of children who present with functional RAP will have anxiety disorder and that 40% will meet the criteria for a depressive disorder. Cognitive behavioural psychotherapeutic intervention for RAP is useful in reducing symptoms of emotional distress,⁷ and in some cases selective serotonin reuptake inhibitors have been found useful. TCAs lack proven efficacy for paediatric anxiety^{3,9} and depressive disorders so their use should be minimised for the treatment of functional abdominal pain. The approach for the management of functional RAP should be feasible, safe, capable of treating comorbid anxiety and depression.

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