



RISK FACTORS OF ACUTE APPENDICITIS IN PAEDIATRIC AGE GROUP

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ABSTRACT

Acute appendicitis is relatively rare in infants and becomes increasingly common in children and early adult life, reaching a peak incidence in children aged 10-12 years. The incidence of appendicitis is equal among males and females before puberty. In teenagers and young adults the male female ratio increases to 3: 2 at this age and thereafter the greater incidence in males declines. This study was undertaken at madurai medical college and hospital for a period of two years with a sample size of 202 patients. All patients were admitted to emergency. A detailed history, thorough clinical examination, blood investigations, plain x ray abdomen and urine examination was performed in all patients. All the information was entered in the proforma specially designed for the study.

KEYWORDS: Paediatric, appendicitis, scan, fibre diet, junk food.

INTRODUCTION

Acute appendicitis is relatively rare in infants and becomes increasingly common in children and early adult life, reaching a peak incidence in children aged 10-12 years.

The incidence of appendicitis is equal among males and females before puberty. In teenagers and young adults the male female ratio increases to 3: 2 at this age and thereafter the greater incidence in males declines.

The epidemiology highlights that the highest incidence is from 10 to 19 years and the risk of perforation is greater in 1 to 4 years and lesser in 10 to 14 years. Appendectomies are the most common emergency procedures performed. This is unusual in the third world countries and there is a relationship to low fibre diet.

With this in view the present study was undertaken with the objectives of Ascertaining the risk factors affecting appendicitis in paediatric age group. To analyse the clinical features of acute appendicitis in paediatric age group.

METHODOLOGY

This study was undertaken at madurai medical college and hospital for a period of two years with a sample size of 202 patients. All patients were admitted to emergency. A detailed history, thorough clinical examination, blood investigations, plain x ray abdomen and urine examination was performed in all patients. All the

information was entered in the proforma specially designed for the study.

Management

All cases were informed that surgery was the definitive treatment. The nature and complications of the surgery were explained and consent was obtained. All patients were operated under regional or general anesthesia and treated with antibiotics post operatively. Type of appendicectomy, whether open or laparoscopy depended on preoperative findings. The specimens were sent for histopathology to the pathology department.

RESULTS

Table 1. Distribution of age

Age group (years)	Number	percentage
5 – 8	10	5
9 – 10	68	34
11 – 13	124	61

Among the sampled respondents two third of them belonged to 11- 13 years followed by 9 to 10 years.

Table: 2. Sex distribution

Gender	Number	Percentage
Male	135	67
Female	67	33

Two thirds of the sampled patients were male children

Table: 3 Region

Category	Number	Percentage
City	72	36
Small town	23	11
Village	107	53

More than half of the patients were from villages and almost one third of them were from cities. Patients from small town made up only 11%.

Table: 4 Dietary habits

Category	Number	Percentage
Vegetarian	0	0
Mixed diet	202	100

All patients consumed both vegetarian and non vegetarian diet. Their staple consumption was either rice or maida.

Table: 5 History of abdominal pain

Site of pain	Number	Percentage
Right iliac fossa	123	61
Umbilical	32	16
Generalised	47	23

The most common site of pain turned out to be right iliac fossa making up to 61 % of cases

Table 6: Nature of pain

Nature of pain	Number	Percentage
Colicky intermittent	179	89
Burning	23	11

89% of patients had intermittent colicky pain making it the most common type of nature of pain in these patients.

Table: 7 Nature of vomiting

Nature of vomiting	Number	Percentage
Bilious	7	5
Non bilious	135	95

Of the sampled patients 95% presented with non bilious vomiting.

Table 8: Grade of Fever

Grade	Number	Percentage
Low	27	17
Moderate	113	71
High	20	12

Most patients presented with moderate grade fever.

Other presenting complaints were dysuria in 9 patients, spurious diarrhea in 9 patients and constipation in 23 patients.

17 patients had such similar episode in the past and 2 patients had a history of previous surgery.

DISCUSSION

Majority of patients (95%) were in the age group of 9 to 13 years. Male category of patients represented 67% out of total sample. More number of patients hailed from villages followed by cities. All the sampled patients had the dietary habit of veg and non veg mixed diet. Nearly

two thirds of patients had experienced pain at right iliac fossa with the duration of pain ranging from 1 to 2 days. The nature of pain was colicky intermittent was experienced by 89%. Almost equal number of sampled patients had vomiting sensation with mild moderate and no vomiting.

The maximum percentage (65%) patients experienced nausea for more than 24 hrs. The nature of vomiting was non bilious with 95% of patients. Fever was of moderate grade with 71% of patients with a duration of more than 24 hrs as experienced by 51 %.

CONCLUSION

The appendicitis in paediatric age group study revealed that most of the patients were in the age group of 9 to 13 years, 67% constituting of male gender. Majority of the patients were from rural areas taking mixed diet. Observations revealed that most of them experienced pain in the right iliac fossa lasting for 1 to 2 days and the nature of pain was intermittent colicky type. Nausea and vomiting were mild to moderate in lasting for 24 hours. The nature of vomiting was non bilious. Fever was of moderate intensity lasting for about 24 hours. The major risk factor for acute appendicitis was found to be consumption of junk food and maida based food items in children.

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