



A STUDY ON INTUSSUSCEPTIONS IN CHILDREN IN JLNLMCH, BHAGALPUR

General Surgery

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Aim and Objectives: Intussusceptions are the commonest cause of surgical emergency in children. In children especially in infancy and early childhood intussusception is a common cause of bowel obstruction. In this study, we have find out the pattern of clinical presentations in children and outcomes of intussusception management in our hospital.

Materials & Methods: In this study, 50 cases of Intussusceptions were taken with age group between 0-15 years. Study was done in surgery department of JLNLMCH, Bhagalpur, Bihar from January 2016 to December 2016. All cases were registered fulfilled the inclusion criteria and exclusion criteria. clinical manifestations including history of previous rotavirus vaccination, duration of illness prior to presentation, diarrhoea, vomiting, passage of red currant jelly- like stool, abdominal mass and distension, method of diagnosis, treatment option(s) employed and their outcomes. Results were analysed statistically.

Results: It was shown in this study that the commonest age group involved was less than 5 years. Male to female ration was 1:1.6. None of the cases had received rotavirus vaccinations. The common clinical presentations were abdominal pain, passage of red currant stool. Diagnosis was done by ultrasonography; surgery (laparotomy) was the treatment of choice in most cases 45 cases. The case fatality rate was 11. Post operative hospital stay was 10 days on average. Surgical site infection was the commonest complication.

Conclusions: Intussusceptions is the commonest abdominal condition in children admitted in emergency department. Intussusception cases usually reported late, therefore, operative procedure was the main treatment modality in the present hospital setup.

KEYWORDS:

Intussusception, abdominal mass, ultrasonography, laparotomy

Introduction-

Intussusception, the invagination of a part of the intestine into itself, is the most common abdominal emergency in early childhood, particularly in children younger than 2 years of age, and the second most common cause of intestinal obstruction after pyloric stenosis. Intussusception is unusual in adults, and the diagnosis is commonly overlooked. In the majority of cases in adults, a pathologic cause is identified. In contrast, the majority of cases in children are idiopathic. Intussusception is the most common cause of intestinal obstruction in infants between 6 and 36 months of age. Approximately 60 percent of children are younger than 1 year old, and 80 percent are younger than 2. Intussusception is rare before 3 months and after 6 years of age. In a population-wide survey in Switzerland, the yearly mean incidence of intussusception was 38, 31, and 26 cases per 100,000 live births in the first, second, and third year of life, respectively, then fell to less than half that rate in older age groups. Most episodes occur in otherwise healthy and well-nourished children. Intussusception occurs most often near the ileocecal junction (ileo-colic), although ileo-ileocolic, jejuno-jejunal, jejuno-ileal, or colo-colic intussusception also have been described. The proximal segment of bowel telescopes into the distal segment, dragging the associated mesentery with it. This leads to the development of venous and lymphatic congestion with resulting intestinal edema, which can ultimately lead to ischemia, perforation and peritonitis. A lead point can be identified in up to 25% of children with ileo-colic intussusception. The remaining 75% are considered to be idiopathic, although an increasing body of evidence suggests that viral triggers may play a role in some cases. The causes of intussusceptions remain largely unknown, however pointers have been alluded to appendiceal stump, Merckel's diverticulum, intestinal polyp, coeliac disease, cystic fibrosis, lymphosarcoma and Henoch-Schonlein purpura. More importantly, association between intussusception and human rotavirus gastroenteritis as well as infections due to adenoviruses and rotavirus vaccination has not been well understood. The aim was to study, the pattern, clinical presentations and management outcomes of childhood intussusceptions in JLNLMCH, Bhagalpur.

Materials and methods

In this study, 50 cases of Intussusceptions were taken with age group between 0-15 years. Study was done in surgery department of JLNLMCH, Bhagalpur, Bihar from January 2016 to December 2016. All cases were registered fulfilled the inclusion criteria and exclusion

criteria. clinical manifestations including history of previous rotavirus vaccination, duration of illness prior to presentation, diarrhoea, vomiting, passage of red currant jelly- like stool, abdominal mass and distension, method of diagnosis, treatment option(s) employed and their outcomes. Results were analysed statistically.

Inclusion Criteria: The confirmed diagnosis of intussusceptions in patients by imaging by ultrasound. Exclusion Criteria: Patients were excluded if the diagnosis of intussusceptions was not validated or patients who were above 15 years of age.

Results:

It was shown in this study that the commonest age group involved was less than 5

Age Group(years)	Number of patients
< 1	04
1-5	26
5-10	12
10-15	08

Male to female ration was 1:1.6. None of the cases had received rotavirus vaccinations.

The common clinical presentations were abdominal pain, passage of red currant stool.

Complain	Number of patients
Abdominal pain	42
Bleeding per Rectum	38
Vomiting	32
Abdominal Distension	30
Constipation	19

Diagnosis was done by ultrasonography; surgery (laparotomy) was the treatment of choice in most cases 45 cases. The case fatality rate was 11. Post operative hospital stay was 10 days on average. Surgical site infection was the commonest complication.

Discussion

Intussusception is the most common cause of acute bowel obstruction in infants and young children with peak incidence between 3 and 18 months which may coincide the change from breast to cow's milk feeding (often a time for heightened allergic response). Children with

intussusception often present with various nonspecific symptoms. The classical symptoms of pain abdomen, vomiting, and bloody stools with or without a mass have been shown to be present in fewer than a quarter of children. The classic triad of colicky abdominal pain, vomiting and red currant jelly stools occurred in 28% of our cases, which is comparable to studies in BPKIHSD haran, Nepal by Shakya et al. The peak age incidence was in age group 1-5 years. This is similar to the findings in other studies. However, a similar study among Taiwanese children reported peak age in children 1 to 3 years. All these cases were in under-five children who are known to be the highest contributor to mortality in developing countries. Males were predominantly affected compared to their female counterparts as previously reported by other workers. The common clinical presentations were vomiting, fever, passage of red currant stools, diarrhea, abnormal/ absent bowel sounds and abdominal distension. Similar findings have been reported by other researchers.

Conclusions: Intussusceptions is the commonest abdominal condition in children admitted in emergency department. Intussusception cases usually reported late, therefore, operative procedure was the main treatment modality in the present hospital setup. Intussusception is a common childhood surgical emergency. However, most cases present late

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