



The prevalence of intussusception based on medical or surgical treatment in patients referred to amiralmomenin hospital between years 2003-13

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Abstract

Introduction: Intussusception signifies the introduction of part of the intestine into adjacent lumen, resulting in intestinal obstruction. The disease has been reported in all ages and even during fetal development, which subsequently led to the absence of intestinal formation.

Method: The present descriptive, cross-sectional study was conducted on all patients, diagnosed with intussusception, referring to Amiral-Mo'menin Hospital in Zabol city from 2004 up to 2014. The inclusion criteria were definitive diagnosis in the patient's case. The required information was extracted from the patient records and recorded in the information form. At the end of the study, the information obtained from the information form was analyzed by statistical analysis in the form of frequency of mean standard deviation and other descriptive statistical indices.

Findings: out of 40 cases studied in the present research, 25 (62.5%) were male and 15 (37.5%) were female. Out of 40 cases studied in the present research, 12 cases (30%) were observed in spring, 16 (40%) in summer, 6 cases (15%) in autumn and 6 cases (15%) in winter. Out of 40 patients referring to Amiral-Mo'menin (AS) Hospital in Zabol province between 2002 and 2003, there were 8 cases (20%) of viral disease and 32 cases (80%) did not have viral disease. Out of 40 cases studied in the present research, 4 cases (10%) had gelatinous stool and 36 cases (90%) had non- gelatinous stool. Out of 40 patients referring to Amiral-Mo'menin (AS) Hospital in Zabol province between 2002 and 2003, 26 cases (65%) were medically treated and 14 cases (35%) underwent surgery.

Conclusion: In regard with sex, the findings of the present study showed that the prevalence of intussusception is more common in ages less than two years old, which is consistent with the results of the majority of formerly conducted studies. Therefore, it is necessary to pay more attention to prevention of the causes of intussusception, especially among boys.

Keywords: intussusception, surgical, medical, zabol

Introduction

Intussusception signifies the introduction of part of the intestine into adjacent lumen, resulting in intestinal obstruction. The disease has been reported in all ages and even during fetal development, which subsequently led to the absence of intestinal formation; however, it is the most common abdominal emergency and the second most common cause of intestinal obstruction in children under the age of two [1, 2]; more than 90% of these cases lack any sort of pathologic cause, such as polyps, lymphoma or Meckel diverticulum. Spontaneous cases may be secondary to intestinal lymphatic encephalopathy and have a positive association with adenoviral infections [3]. The highest prevalence of the disease is in the middle of the summer and the middle of winter, and in most cases the enlarged plaques have a stimulating role. Mechanical factors such as Meckel diverticulum, polyps, hematemeses of all walls and intestinal lymphoma are prevalent in patients over one year old. The ratio of males to females is 3 to 1. The maximum prevalence is in children aged 5-9 months and 80% of patients are under the age of 2 years, and there is only a minor lesions in particular in children over 5 years of age [4, 5]. Most common forms of intussusception include ileocolic, ileoceocolic, and llioilial [6]. The most serious consequence of intussusception is intestinal obstruction; additionally, adjacent walls might interfere and

there might be inflammation, edema, and ultimately reduced blood flow. Reducing blood supply, perforation, peritoneal inflammation and shock are serious complications of bowel discomfort [7]. The correct and rapid diagnosis of who might have intussusception and their immediate referral leads to faster treatment and a reduction in mortality. At first, we need to determine its prevalence in the region, so that we can take the necessary measures accordingly [8]. On the other hand, due to the importance of known mechanical factors such as Meckel diverticulum, polyps, hematomas of all walls and intestinal lymphoma, we decided to investigate the prevalence of mechanical factors in the intussusception of the intestine. According to the said articles and given that one of the hypotheses about the cause of intussusception of the intestines is viral agents, this study can be used to determine whether or not this disease is common in the seasons of the spread of viral infections; anyway, collected data can be used to predict the onset of intussusception in children who have been infected with the virus.

Methodology

The present descriptive, cross-sectional study was conducted on all patients, diagnosed with intussusception, referring to Amiral-Mo'menin Hospital in Zabol city from 2004 up to 2014. The inclusion criteria were definitive diagnosis in the

patient's case. The required information was extracted from the patient records and recorded in the information form. At the end of the study, the information obtained from the information form was analyzed by statistical analysis in the form of frequency of mean standard deviation and other descriptive statistical indices.

Findings

Out of 40 cases studied in the present research, 25 (62.5%) were male and 15 (37.5%) were female.

Table 1: The Prevalence of Intussusception in patients based on sex

sex	Frequency	Percent
Male	25	62.5%
Female	15	37.5%
Total	40	100

Out of 40 cases studied in the present research, 12 cases (30%) were observed in spring, 16 (40%) in summer, 6 cases (15%) in autumn and 6 cases (15%) in winter.

Table 2: The Prevalence of Intussusception in patients based on season of admission

Season	Frequency	Percent
Spring	12	30%
Summer	16	40%
Autumn	8	20%
Winter	4	10%
Total	40	100

Out of 40 patients referring to Amiral-Mo'menin (AS) Hospital in Zabol province between 2002 and 2003, there were 8 cases (20%) of viral disease and 32 cases (80%) did not have viral disease.

Table 3: The Prevalence of Intussusception in patients based on presence or absence of viral disease

Viral disease	Frequency	Percent
Viral disease	8	20%
Non-viral disease	32	80%
Total	40	100%

Out of 40 cases studied in the present research, 4 cases (10%) had gelatinous stool and 36 cases (90%) had non- gelatinous stool.

Table 4: he Prevalence of Intussusception in patients based on stool

Gelatinous stool	Frequency	Percent
Gelatinous stool	4	10%
Non-gelatinous stool	36	90%
Total	40	100%

Out of 40 patients referring to Amiral-Mo'menin (AS) Hospital in Zabol province between 2002 and 2003, 26 cases (65%) were medically treated and 14 cases (35%) underwent surgery.

Table 5: The Prevalence of Intussusception in patients based on medical or surgical treatment

Treatment	Frequency	Percent
Medical	26	65%
Surgical	14	35%
Total	40	100%

Out of 40 cases studied in the present research, 27 cases (67.5%) had a place of lleocolic involvement and 9 cases (22.5%) were lleoceocolic and 4 cases (10%) were llioilial.

Table 6: The Prevalence of Intussusception in patients based on location involvement

Location involvement	Frequency	Percent
lleocolic	27	67.5%
lleoceocolic	9	22.5%
llioilial	4	10%
Total	40	100%

Discussion and Conclusion

The highest seasonal incidence was witnessed in summer (40%), which is consistent with the study conducted by Chen *et al.* [9], according to which the outbreak is more commonly witnessed in warm months in comparison with the cold months of the year; however, the results of the present study turned out to be inconsistent with what Koranloo *et al* [10] stated. It has been reported that seasonal changes are associated with the onset of in intestinal Intussusception, often coinciding with the seasonal peak of gastrointestinal inflammation [11-12]; this issue is applicable to the result of the present study, as well, according to which intestinal enzootic septum has a higher prevalence in warm months of the year when intestinal inflammation is more commonly observed. In regard with studied human stool, 10% of patients had gelatinous stool, a point which is consistent with Koranloo *et al* study. The highest percentage of patients (65%) were treated with medication, which was consistent with most studies.

Conclusion

In regard with sex, the findings of the present study showed that the prevalence of intussusception is more common in ages less than two years old, which is consistent with the results of the majority of formerly conducted studies. Therefore, it is necessary to pay more attention to prevention of the causes of intussusception, especially among boys. It is, also, quite important to provide more extensive training on surgery and pediatrics for different age groups so that we can step up in the near future with scientific, practical and empirical advances with other centers of the world and provide better and better services to patients, especially children, of our country.

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