

The Study of Clinical Profile of Intestinal Obstruction

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Abstract

Context: Acute Intestinal Obstruction is the main surgical emergency problem that a general surgeon has to face place every day irrespective of day and night. It is quite an exciting experience to examine, investigate, diagnose, explore, and look into the abdominal cavity where it would reveal the puzzling conditions. This study is to assess cases of acute intestinal obstruction.

Aims: To study the clinical profile in adult patients with acute intestinal obstruction

Settings and Design: This is a tertiary care hospital done prospective study.

Methods and Material: This study was conducted in a tertiary care hospital of suburban Telangana. During the study period, the total number of patients with Acute Intestinal obstruction who underwent surgery was 75. Total number of acute intestinal obstruction with provisional diagnosis was 234. They were evaluated for clinically and radiological.

Statistical analysis used: Statistical analysis was done using ratios and percentage

Results: A total of 234 patients with provisional diagnosis of acute intestinal obstruction where diagnosed of which 75 patients underwent emergency surgery. On analysis of etiological factors external hernias (53%) is the most common cause of acute.

Intestinal obstruction, followed by adhesions and bands (28%). This study showed male preponderance (83%) against females (17%). Incidence in relation to

age was found maximum in 51-60yrs (33.3%). Most common presentation is pain (100%) abdomen.

Conclusions: External hernia is the most common cause of acute intestinal obstruction with male preponderance. Age group affected most is sixth decade. Most common presenting symptom is pain abdomen

Keywords: Intestinal obstruction; Pain abdomen; Adhesions.

Introduction

Acute Intestinal Obstruction is the main surgical emergency problem which a general surgeon has to face place every day irrespective of day and night.¹ It is quite an exciting experience to examine, investigate, diagnose, explore and look into the abdominal cavity where it would reveal the puzzling conditions.² Acute intestinal obstruction can result from a variety of causes, and there is a tendency to concentrate on the features of intestinal obstruction itself.³ Success in the treatment of acute intestinal obstruction depends largely upon early diagnosis, skillful management, and the appreciation of the importance of treating the pathologic effects of the obstruction just as much as the cause itself.⁴ The abdomen is said to be a magic box and so long as its lid remains unopened heaven alone knows what lies within it.⁵ But every attempt should be made to arrive at a provisional diagnosis before embarking on surgery. The rapid onset and progress of the clinical feature and the spread with which the morbidity set in endangers the patients in spite of recent advances still this condition holds a major share of mortality due to so many practical

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factors which provoked to study and analyses this interesting subject.^{6,7,8} Since life to death is one way traffic, it is no harm to open an acute abdomen in doubt rather than to wait and worry later for our act.

Aims and objectives

To study the clinical profile in adult patients with acute intestinal obstruction.

Subjects and Methods:

This study was conducted in a tertiary care hospital of suburban Telangana. The study duration was from January 2019 to January 2020. During the study period, the total number of patients with Acute Intestinal obstruction who underwent surgery was 75. Total number of acute intestinal obstruction with provisional diagnosis was 234. They were evaluated for clinically and radiological.

Inclusion criterias:

1. Acute intestinal obstruction in individuals above 12 yrs.
2. Intestinal obstruction operated as emergency.

Exclusion criterias:

1. Acute intestinal obstruction in children below 12 yrs.
2. Adynamic Intestinal obstruction and colonic pseudo obstruction.
3. Intestinal obstruction treated conservatively.

For all admitted cases which were diagnosed provisionally as Acute intestinal

Obstruction, the following management was done routinely, during the Pre Operative period. I.V. line with wide bore cannula was inserted and intra venous fluid started mostly with crystalloid solutions. Gastric decompression with Ryles tube done. Urinary catheter inserted to monitor output. Complete haemogram, Blood urea, sugar, Serum Creatinine, Blood grouping and Serum electrolyte were done. Hourly Abdominal Girth, Blood pressure, pulse, Temperature, Respiration

Were monitored-ray Chest, X-ray Abdomen, Erect and Supine view were taken. USG Abdomen, CT Abdomen, done is equivocal cases. Parenteral antibiotics given routinely. Repeated clinical examinations to assess the progress of the

condition done. Patients not improved with above management were taken up for Surgery.

Indications of Operation

1. Failure to respond to conservative treatment.
2. Strangulation
3. Acute colonic obstruction, especially when distension is marked.

Statistical analysis:

Statistical analysis was done by using simple ratio and percentages. Microsoft 2010 was used to generate tables.

Result

During the study period till date, the total number of patients with Acute Intestinal obstruction who underwent surgery was 75. Total number of Acute intestinal obstruction with provisional diagnosis is 234. This contribute 32% of the provisional diagnosis of acute intestinal obstruction that underwent emergency surgery.

The Following Results are Seen

On analysis of etiological factors the external Hernias is the most common cause of acute intestinal obstruction with 40 cases (53%), next most common cause is Adhesions and Bands with 21 cases (28%). Colonic growth and sigmoid volvulus accounted for 6% and 4% respectively. Abdominal tuberculosis and intussusception contributed for 2% each. The male female ratio of the present series is 4.7:1 showing the predominance of male with percentage of (83%) for males against (17%) in females. This is probably due to the higher incidence of inguinal hernias, adhesions and volvulus in men than in women. On analysis of incidence in relation to age for acute intestinal obstruction in this study it was found that maximum incidence was in between 51 - 60 years age group with 25 cases (33.3%) next largest group being 41 - 50 years with 17 (22.7%), 20 years and below has least incidence. This study shows most common presentation is pain (100%) abdomen, followed by vomiting (62.6%). followed by distension [50.6%] and few with constipation [13.3%]. ON analysis of study it shows that the cause of acute intestinal obstruction due to adhesions and bands was emergency surgeries operated previously. 66.7% cases were operated previously.

Table 1: Etiological factors.

Diagnosis	Total	Percentage
External hernias	40	53%
A. inguinal	35	
B. Femoral	5	
Adhesions and Bands	21	28%
A. post operative	20	
B. idiopathic	1	
Colonic growth	6	8%
Sigmoid volvulus	4	5%
Abdominal tuberculosis	2	3%
Intussusception	2	5%
Total	75	100%

Table 2: Sex distribution.

Etiological Factor	Male	Female
Inguinal hernia	35	2
Femoral hernia	1	2
Adhesions & Bands	15	6
Intussusception	1	1
Abdominal tuberculosis	2	0
colonic growth	4	2
sigmoid volvulus	4	0
Total	62(82%)	13(17%)

Table 3: Age distribution of patients.

Age Group	Number of Cases	Percentage
13-20	2	2.7%
21-30	8	10.6%
31-40	11	14.8%
41-50	17	22.7%
51-60	25	33.3%
61-70	8	10.6%
71-80	4	5.4%
Total	75	100%

Table 4: Distribution of symptoms among study patients.

Symptoms	Number of Cases	Percentage
Pain	75	100%
vomiting	47	62.6%
Distension	38	50.6%
Constipation	10	13.3%
51-60	25	33.3%
61-70	8	10.6%
71-80	4	5.4%
Total	75	100%

Table 5: Acute intestinal obstruction in relation to previous surgery.

Surgery	Number of cases	Percentage
Elective	7	33.3%
Emergency	14	66.7%
Total	21	100%

Discussion

The overall most common cause of intestinal obstruction in the present study is comparable with various study conducted by Miller.et.al (4%),⁹ PBchakraborty (50.6%).¹⁰ In the present study the common cause is externalhernia (obstructed hernia) but in Miller et.al study it is adhesions and bands the common cause,, and in PB chakraborty study again it is external hernia the common cause. The common cause of acute intestinal obstruction in the present study is external hernia and not adhesions and bands or other cause because of safe practice of previous surgeries, earlyintervention, less tissue handling which cause less incidence of adhesions and bands and early diagnosis of malignancies, colonic growths by which obstruction can be minimized.

In the present study the incidence of acute intestinal obstruction is highest between 51-60yrs age group 33.3%. Similar trends were seen in other studies conducted by McEntee. et. al, H.Tsumara et. al.¹¹ The higher incidence of acute intestinal obstruction in elderly age group 51-60yrs is due to decreased tone of muscles that cause hernias, malignancies, tuberculosis that cause intestinal obstruction.

In the present study the incidence of Acute intestinal obstruction in males is 4.7%, females 1%. In a similar study conducted by Miller.et.al incidence of Acute intestinal obstruction in males is 2.5% and females is 1%. In both studies the incidence of acute intestinal obstruction was more in male patients it is not significantly high. This shows the male sex as risk factor due higher incidence of external hernias, adhesions and bands, volvulus, malignancies more in male population than female.

In the present study the most common clinical symptom is pain 100% followed by vomitings, distension, constipation. In the study done by Buechter.et.al the common clinical symptom is pain 78% follwed by vomitings, distension, constipation, similar trends were seen in study conducted by P.Mutcha.et.al. (Pain 90%).^{12,13} As in acute intestinal obstruction due to dilated

bowels, and distension of abdomen that causes acute and early pain abdomen. This shows that in the present study 66.7% patients underwent emergency surgery which causes adhesions and bands later in the follow up period those results in acute intestinal obstruction. The studies conducted by Brodin RE et. al.¹⁴ also show the cause of acute intestinal obstruction due to adhesions and bands was previous emergency surgery.

Conclusion

External hernia is the most common cause of acute intestinal obstruction with male preponderance. Age group affected most is sixth decade. Most common presenting symptom is pain abdomen

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Conflict of interest: nil

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