

Original article**A STUDY OF INTESTINAL OBSTRUCTION CONSERVTIVE v/s SURGICAL MANAGEMENT**

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ABSTRACT

INTRODUCTION: Intestinal obstruction can be defined as impairment to the abnormal passage of intestinal contents that may be due to either mechanical obstruction or failure of normal intestinal motility in the absence of an obstructing lesion. The causes of a small bowel obstruction can be divided into three categories: extra luminal, intrinsic, Intraluminal.

METHODOLOGY

This is a retrospective observational study. All patients presenting to the Emergency and Out-Patient Department of surgery unit with features of intestinal obstruction were screened to identify the patients with AIO.

RESULTS AND DISCUSSION

In this study total 60 no. of pt. were evaluated during the period of January 2017 to June 2018. From these 60 pts. 22 pts. managed conservatively where as 38 pts. were managed surgically. Overall mean age group of these pt. was 54 and M:F ratio was 1.3:1. Male has higher incidence than female .Among these pts. abdominal pain and vomiting are more common symptom than obstipation .Among this 60 patients, 20 patients had previous abdominal surgery, 16 patient had exploratory laparotomy for abdominal trauma , perforation, gynaec procedure , appendicectomy, etc. 4 patient developed features of obstruction following laproscopic T.L. among these 6 patients were managed conservatively and 14 patient undergo surgery. Mean duration for surgically managed was 2.8 days. Mean duration for conservatively managed patients was 2.9 days. Among the surgically managed pts. 14 had adhesions, 11 had stricture, 8 had obstructed hernia, 1 had intussusception, 4 had abdominal TB. Surgical procedures were done according to the cause of the obstruction. History of abdominal surgery was found to be more frequent in whom obstruction was relieved conservatively.

CONCLUSION

- Adhesions due to previous surgery were found to be the most common cause of SBO.
- We were unable to accurately identify clear criteria for success of conservative v/s surgical management. None of the variable analyzed in this study were significant predictors for success of a particular line of treatment
- The management of SBO and timing of surgical intervention continue to be governed by clinical decisions. Further study of methods for control and treatment of SBO is important because of its frequency, morbidity and cost in healthcare and patient's disability

Key words – obstruction, adhesion, dynamic obstruction, a dynamic obstruction.

INTRODUCTION: Intestinal obstruction can be defined as impairment to the abnormal passage of intestinal contents that may be due to either mechanical obstruction or failure of normal intestinal motility in the absence of an obstructing lesion. It is characterized by absence of passage of flatus and/or feces beyond 6-12 hrs. after onset of symptoms namely colicky abdominal pain, vomiting, and abdominal distension.(3)(6) It may develop as acute obstruction and get relieved within few hours spontaneously or after conservative management. The description of patients presenting with small bowel obstruction dates back to the 3rd or 4th century, when Praxagoras created an enterocutaneous fistula to relieve a bowel obstruction. Despite this success with operative therapy, the nonoperative management of these patients with attempted reduction of hernias, laxatives, ingestion of heavy metals (e.g., lead or mercury), and leeches to remove toxic agents from the blood was the rule until the late 1800s, when antisepsis and aseptic surgical techniques made operative intervention safer and more acceptable. The causes of a small bowel obstruction can be divided into three categories: causes such as

1. Obstruction arising from **extraluminal** adhesions, hernias, carcinomas, and abscesses.
2. Obstruction **intrinsic** to the bowel wall (e.g., primary tumors).
3. **Intraluminal** obturator obstruction (e.g., gallstones, enteroliths, foreign bodies, and bezoars).

Large bowel obstruction can be classified as dynamic (mechanical) or adynamic (pseudo-obstruction). Mechanical obstruction is characterized by blockage of the large bowel (luminal, mural, or extramural), resulting in increased intestinal contractility as a physiologic response to relieve the obstruction. Patients with intestinal obstruction are often seriously ill and require frequent assessment, monitoring of vitals and clinical progress to determine the need of surgical intervention.

AIMS AND OBJECTIVES

- To study the clinical profile and clinical features of patients presenting with acute intestinal obstruction (AIO).
- To study the role of investigations in diagnosis of AIO. To find out the underlying cause of AIO in patients under study.

- To study the predictors of relief of symptoms in patients with AIO.
- To study the indications and timing for surgery for AIO.
- To follow-up the progress of patients and find out the outcome of management.

MATERIALS AND METHODS: This study was conducted at Department of Surgery, L. G. Hospital, Maninagar, Ahmedabad from January 2017 to January 2018. Total number of 60 patients were included in this study. Patients for clinical study will be selected from wards of L. G. Hospital having c/o abdominal pain, tenderness, distension, increase bowel sounds etc. were diagnose to have intestinal obstruction during period of evaluation with the following inclusion and exclusion criteria. A predesigned proforma will be used to collect information for individual case. All selected cases will be studies from admission to 6 months following discharge on grounds as mention in objectives.

INCLUSION CRITERIA

Patients coming to L.G. Hospital with s/s of intestinal obstruction - abdominal pain, tenderness, distension, increase bowel sounds, constipation, dehydration etc. and are willing for non surgical or surgical management are included after taking informed written consent.

EXCLUSION CRITERIA

Patients who are not fit for surgery or not willing to be a part of this study.

METHODOLOGY

This is a retrospective observational study. All patients presenting to the Emergency and Out-Patient Department of surgery unit with features of intestinal obstruction were screened to identify the patients with AIO. Informed consent was obtained from the patients for inclusion in the study.

The patients were interviewed and the presenting complaints, detailed history of illness, past history, information regarding co-morbid conditions, previous treatment/surgery history, etc. were recorded on the pre-designed data sheet. Findings of clinical examination, and investigations (hemogram, random blood sugar, blood urea, serum electrolytes, urine routine and microscopy, etc.) were also recorded on the data sheet.

History, among other things, included the presenting complaints namely, pain and its character, vomiting, abdominal distension, and passage of faces and/or flatus. History of similar illness in past, previous abdominal surgery, and any known abdominal illness were also inquired into.

A detailed clinical examination was undertaken especially noting presence of tachycardia, fever, and abdominal signs like abdominal distension, tenderness, presence of palpable/visible bowel loops, lumps and nature of bowel sound. Digital rectal examination was done in every case noting its findings.

Plain x-ray of abdomen in erect and supine posture were undertaken noting the presence/absence of multiple air-fluid levels, dilated bowel loops, and colonic gas.

Simultaneous with clinical assessment and investigations, the patients were initially managed conservatively. Patients' oral intake was withheld, nasogastric tube was inserted for aspiration of gastrointestinal secretions, intra-venous fluids were administered. Electrolyte imbalance, if present, was corrected.

The patients were observed for features of relief of obstruction like reduction in vomiting, pain score, and passage of feces/flatus, reduction in tenderness and abdominal girth; disappearance of visible/palpable bowel loops; and reduction in nasogastric tube output. The patients were monitored regularly for development of signs of strangulation, viz., tachycardia, fever, abdominal tenderness, etc. If patient developed signs of strangulation, patient was operated on emergency basis. If the patient did not get relieved conservatively within a few hours of observation, exploratory laparotomy was performed.

The patients who got relieved within few hours on conservative treatment were further investigated if there was a history of recurrent similar attacks or if patient developed recurrent symptoms. Ultrasound of the abdomen and pelvis, CT scan abdomen, laparoscopy, some special investigation (Barium meal follow through) were undertaken in a sequential order to look for findings suggestive of intestinal obstruction and specific signs which suggest cause of obstruction.

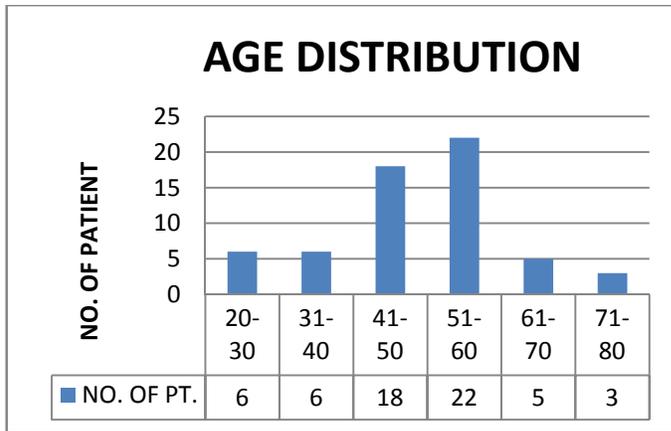
In case the investigation provided sufficient information to confirm the diagnosis of a lesion explaining the symptoms of AIO in the patient, appropriate operation intervention was undertaken. In case the investigation failed to provide required information, the next investigation was undertaken.

RESULTS AND DISCUSSION

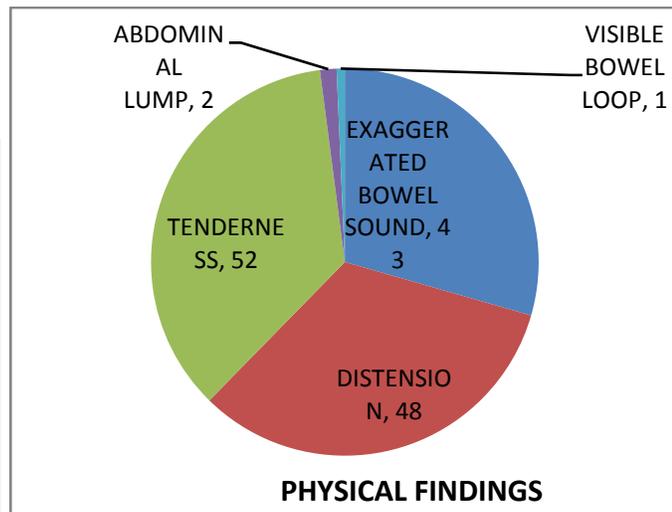
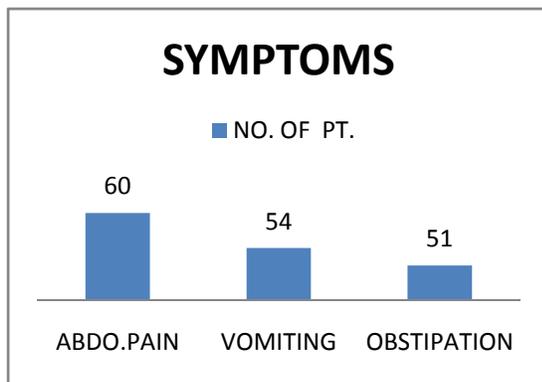
In this study total 60 no. of pt. were evaluated during the period of January 2017 to June 2018. From these 60 pts. 22 pts. managed conservatively where as 38 pts. were managed surgically.

Overall mean age group of these pt. was 54 and M:F ratio was 1.3:1. Mean age group among the pts. who were managed conservatively was 47.2 and M:F ratio was 2.8:1 where as surgically managed pt. has mean age – 55.7 and M:F ratio 1.2:1. Male has higher incidence than female

AGE INTERVAL	PATIENTS
20-30	6
31-40	6
41-50	18
51-60	22
61-70	5
71-80	3

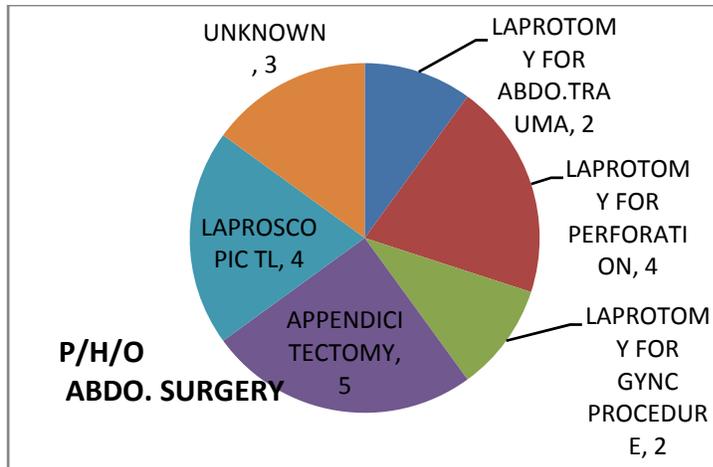


Among these pts. abdominal pain and vomiting are more common symptom than obstipation. Among the conservatively managed pts. all have abdominal pain, 20 pt. had vomiting and 21 pt. had obstipation. Among the surgically managed pts. all had abdominal pain, 31 pts. had vomiting, 33 pts. had obstipation. On physical findings 52 patients had abdominal tenderness, 48 had abdominal distension, 43 had exaggerated bowel sounds, 1 patient had visible bowel loop and 2 patients had abdominal lump on palpation.



Among this 60 patients, 20 patients had previous abdominal surgery, 16 patient had exploratory laparotomy for abdominal trauma, perforation, gynaec procedure, appendectomy, etc. 4 patient developed features of obstruction following laproscopic T.L. among these 6 patients were managed conservatively and 14 patient undergo surgery.

CTSCAN FINDING	NO. OF PT.
BOWEL THICKENING	4



STRICTURE	4
MALROTATION	2
TB	3
INTUSSUSCEPTION	1

Around 14 patients underwent further investigation like CT scan, 4 patients had bowel thickening, 4 patients had stricture, 2 patients had malrotation, 3 patients had TB and 1 patient had intussusception. Conservatively managed patients were watched for vital parameters and other parameters like increased abdominal distension, increasing vomiting or RT output and abdominal tenderness. Patients were also monitored for WBC count, lactate level and urinary output. Patients that show signs of peritonitis, strangulation and haemodynamically unstable patients underwent surgical intervention. Mean duration for surgically managed was 2.8 days. Mean duration for conservatively managed patients was 2.9 days. Among the surgically managed pts. 14 had adhesions, 11 had stricture, 8 had obstructed hernia, 1 had intussusception, 4 had abdominal TB. Surgical procedures were done according to the cause of the obstruction. Adhesiolysis for adhesions, stricturoplasty for stricture and hernia site exploration and hernia repair for obstructed hernia.

PER OP FINDING	NO. OF PATIENTS
ADHESIONS	14
STRICTURE	11
INTUSSUSCEPTION	1
OBSTRUCTED HERNIA	8
ABDO.TB	4

ETIOLOGY OF ADHESION	NO. OF PT.(14)
PREVIOUS SURG.	7
TB	1
PREVIOUS SURG.+ TB	2
IDIOPATHIC	4

The demographic features, presenting features and investigatory findings of the patients who got relieved by conservative management and patients who required surgery were compared. History of abdominal surgery was found to be more frequent in whom obstruction was relieved conservatively. Among the [patients who got relieved with conservative management, time taken for relief ranges from 1-4 days following admission with mean of 2.9 days and amongst the surgically managed patients the mean admission-operation interval was 2.3 days ranging from 1-4 days

VARIABLE	CONSERVATIVELY MANAGED PT.(22).	SURGICALLY MANAGED PT.	P VALUE(CHI SQUARE TEST
MEAN AGE	47.2	55.7	0.966
M:F	2.8:1	1.2:1	0.206
VOMITING	20	31	0.48
OBSTIPATION	21	33	0.332
DISTENSION O/E	18	36	1
ABDOMINAL LUMP	0	2	N.A.
VISIBLE BOWEL LOOP	0	1	N.A.
P/H/O ABDO. SURGERY	6	14	0.01
POSITIVE SIGN OF PERITONITIS	0	12	N.A.

CONCLUSION

- Adhesions due to previous surgery were found to be the most common cause of SBO.
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