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Original Research Article

Study of Acute Intestinal Obstruction-Conservative Vs Operative Management

Dr. Bijendra Sinh Rana[1], Dr. Sagar Ghodasara[2], Dr. Mayank Vekariya[3], Dr. Hitesh Meghani[4]
[1]Resident in plastic surgery at Baroda civil hospital
[2]Senior resident at P.D.U. medical college, Rajkot
[3]Assistant professor at P.D.U. medical college, Rajkot
[4]Assistant professor at P.D.U. medical college, Rajkot

***Corresponding author**
Dr. Sagar Ghodasara
Email: sagarghoda88@gmail.com

Abstract: This study is needed because intestinal obstruction is frequently encountered problem in general surgery and is associated with considerable morbidity and mortality. A better understanding of the pathophysiology of bowel obstruction and the use of isotonic fluid resuscitation, intestine tube decompression, and antibiotics has greatly reduced the mortality rate for patients with a mechanical bowel obstruction. However, patients with a bowel obstruction still represent some of the most difficult and vexing problems that surgeons face with regard to correct diagnosis, optimal timing of therapy, and appropriate treatment. Patients suffering from this condition require careful evaluation and management. There is need to evaluate strategies for operative and non-operative management of intestinal Obstruction. 53% of total was conservative cases having pain, vomiting and distension less severity compared to 47% of total operated cases. Out of all cases, adhesions cases were 24%. The average hospital stay of conservative cases was 5 days and that of operative was 14 days. The cases with conservative treatment showed improvement within 72 hrs. Many studies and review article published on this topic. Different studies shown the same result that is, adhesions being most common etiological factor should be treated conservatively first as in our study. Out of all adhesions cases, 79% rate reported showed that appendicectomies and colorectal resections were responsible for 43% of cases. The window period for conservative management is of 68 hrs. Adhesion is the most common cause of intestinal obstruction worldwide and should be managed conservatively in the beginning and there is no exact method to avoid adhesion. The conventional way of acute bowel obstruction operation can relieve the obstruction, but cannot avoid relapse caused by adhesion. In patients with bowel obstruction who have not had previous abdominal surgery, or in those with clinical evidence of bowel ischemia, a laparotomy is mandatory.
Keywords: intestinal obstruction, adhesions, conservative, operative management.

INTRODUCTION:

Small bowel obstruction is frequently encountered surgical problem. Various etiological factors identified and studied in detail. Various methods of decompression had been already suggested. Conservative methods tube decompression, fluid resuscitation with strict vital monitoring had good outcome for some cases. But some cases required compulsory laparotomy to relieve obstruction. Ultimate clinical decisions regarding the management of these patients dictates a thorough history and workup and heightened awareness of potential complications.so aim of our study is to answer the following questions.

1. Can any tests differentiate patients whose non-strangulating obstruction will resolve non-operatively?
2. How long non-operative management should be tried?
3. Can adhesiolysis reduce the risk of recurrent Intestinal Obstruction, readmission or reoperation?
4. What is current scenario of recurrence rates and disease free interval of operative and non-operative management of Intestinal Obstruction?

MATERIALS AND METHODS:

Sample size-

76 patients selected from the patients admitted at CUSMC and Hospital between June 2013 till September 2015 are included in the study with diagnosis of intestinal obstruction. All patients clinically assessed, blood and radiological investigations done. Then management comparison done.

Inclusion criteria:

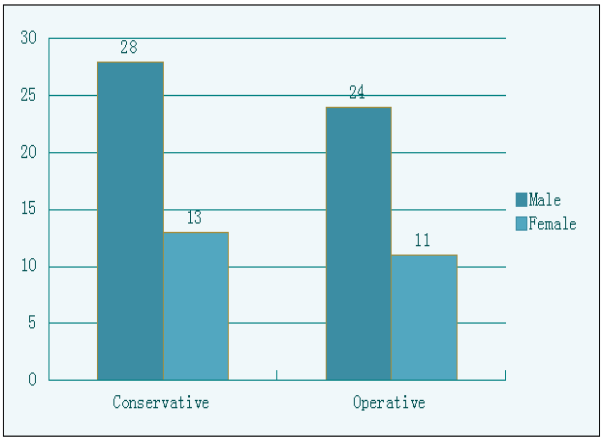
All the patients admitted to CUSMC and Hospital with Diagnosis of Acute Intestinal Obstruction and above the age of 10 Years.

Exclusion criteria:

Patients below the age of 10 years

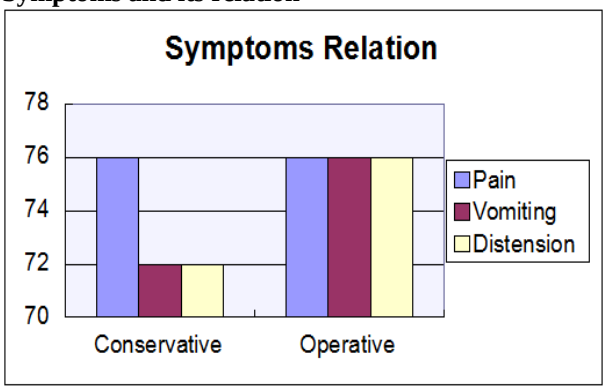
ANALYSIS AND RESULT:

Conservative vs Operative cases gender wise



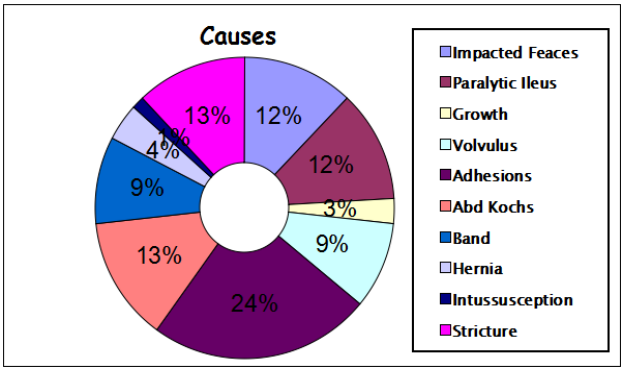
From total 76 cases which were taken for study ,40 cases which accounts for 53 % of total was conservative cases while 36 cases which accounts for 47% of total was operated. In Male total number of cases which were treated conservative was 28 cases and 24 cases required operation. In female 13 cases were conservative and 11 cases required operation.

Symptoms and its relation



The main symptoms related to intestinal obstruction includes Pain, vomiting and abdominal distension. All the 3 were present in cases which were operated whereas the rest of two were not present in some cases as compared to the operative cases. Also, the severity of symptoms in operative cases was more as compared to conservative cases, in which case it was mild.

Percentage wise causes of Intestinal Obstruction



Causes	Cases	Percentage
Impacted Faeces	9	12%
Paralytic Ileus	9	12%
Growth	2	3%
Volvulus	7	9%
Adhesions	18	24%
Abd Koch	10	13%
Band	7	9%
Hernia	3	4%
Intussusception	1	1%
Stricture	9	13%

Hospital stay

Average number of hospital stay of patients treated conservatively is 5 days. Average number of hospital stay for operated patients is 14 days. As a result, the average hospital stay of operated patients is almost 3 times that of conservative patients. Also, the recurrence is possible in operative and conservative cases.

DISCUSSION:

If we compare our study with original work, our study result matches with the following original study work.

Nonoperative Management of Patients with a Diagnosis of High-grade Small Bowel Obstruction by Computed Tomography-

study conducted by Flavio and coworkers [1] suggest that conservative management has been advocated for a period of up to 5 days and the mean interval to intervention in our nonoperative trial group was 68 hours 45 minutes.9 Delayed operation was not associated with an increased risk of strangulation because there was no statistical difference between the need for a bowel resection or complications between the immediate or delayed groups.

A review of the management of small bowel obstruction, Members of the Surgical and Clinical Adhesions Research Study (SCAR STUDY) [2]

This study suggests that the burden of adhesion-related disease continues to increase for at least 10 years after the index operation and probably

beyond. The management of small bowel obstruction is predominantly the management of obstruction due to postoperative adhesions. The selective use of radiological techniques, such as water soluble contrast and CT studies, often help to characterize the nature of the obstruction and may even help with its resolution. Techniques involving the use of laparoscopy and barrier membranes may reduce morbidity but there is a need to evaluate these strategies further with prospective clinical trials.

Sabiston book of surgery [3]

Adhesions secondary to previous surgery are now the most common cause of small bowel obstruction. Adhesions, particularly after pelvic operations (e.g., gynecologic procedures, appendectomy, colorectal resection), are responsible for more than 60% of all causes of bowel obstruction in the United States.

Cox *et al.;* [4]

Postoperative adhesions account for 64–79% of admissions with small bowel obstruction (SBO). One hundred and nineteen patients had admissions with an initial diagnosis of acute SBO due to adhesions. The previous operations were: appendicectomy 23.3%; colorectal resection 20.8%; gynecological surgery 11.7%; upper gastrointestinal (gastric, biliary or splenic) surgery 9.2%; small bowel surgery 8.3%; and more than one previous abdominal operation 23.6%. Sixty-one admissions required surgery to relieve the SBO. Eighteen patients had strangulated small bowel. Band adhesions were commonly found following appendicectomy, colorectal resections or gynecological operations.

CONCLUSSION:

In patients with bowel obstruction who have not had previous abdominal surgery, or in those with clinical evidence of bowel ischemia, laparotomy is mandatory. There is no role for conservative management for acute mechanical obstruction due to bands, perforation with obstruction like wise. Adhesions being the most common cause for obstruction. There is no exact method to avoid adhesion. However great care should be used in the gentle handling of the bowel to reduce serosal trauma. Scrutinous clinical monitoring must be required as there is marginal window of about 72 hrs for conservation because there is less chance for intestine reverts to normal function after 72 hrs. The conventional way of acute bowel obstruction operation can relieve the obstruction, but cannot avoid relapse caused by adhesion. Especially for complex adhesive intestinal obstruction, operation would result in more extensive adhesions, with a high recurrence rate. The clinical presentation of patient at time of admission, the investigations data and Radio-logical findings play an important role in predicting operative vs non-operative management of Intestinal Obstruction.

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