

ORIGINAL RESEARCH

A Study on Clinical Profile of Intestinal Obstruction

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ABSTRACT

Background: Intestinal obstruction can either be a mechanical or functional obstruction of small or large intestines. The obstruction occurs when the lumen of the bowel becomes either partially or completely blocked. The common presenting symptoms are distension of abdomen, pain abdomen, constipation and vomiting's. Small bowel obstructions are more common, than large bowel obstructions. The incidence of bowel obstruction in Males and Females is equal. Bowel obstructions are classified as partial, complete or closed loop.

Aim of the Study: To know the etiology, clinical features of the intestinal obstruction in a teaching hospital.

Materials and Methods: This study has been conducted for 8 months, from January 2022 to August 2022 in the department of general surgery in Gowridevi Medical College. We have included 44 total no of patients out of these, 44 patients Males were 23, and Female were 21. 3 patients were died because of complications and other co morbid conditions.

Results: We have included 44 patients in this study. Out of these 44 patients 23 were males and 21 were female patients. The age group is between 20 years and 70 years. 3 patients died because of complications.

Conclusion: Intestinal obstruction is a very common surgical emergency in industrial area. Males and Female are almost equally affected. Small intestines are more commonly affected than large intestine.

Keywords: Large Intestine, Small Intestine, Obstruction, Pain abdomen, Mortality.

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INTRODUCTION

Despite being one of the most common surgical emergencies, intestinal obstruction is often difficult to manage even today and is associated with significant morbidity and mortality. Its etiology differs not only between countries but also between different regions of a single country. Adhesive obstruction has been reported to be the most common reason for intestinal obstruction in Western countries since the end of the last century while obstructed hernias are continuing to be the most common cause in developing countries (1). Due to advances in diagnostic and operative techniques along with postoperative intensive care, the mortality has now decreased from 60% to less than 10% over the last century but there is considerable variation in these with age and different etiological diagnoses (2). Although there have been numerous reports on intestinal obstruction from western countries there have been very few publications from the developing world. There are major differences not only in the etiology of the

condition but also the treatment and management resources between both regions (3). Nevertheless, we opined that with the improvement in living standards and better access to health care facilities, previously reported causes and outcomes of intestinal obstruction from developing countries might be changing, particularly for patients admitted to tertiary care hospitals in larger cities which might now be more similar to the western pattern. Because of the emergent presentation and risk of bowel strangulation necessitating urgent surgery, an early establishment of the cause of obstruction is of importance to reduce major morbidity and mortality.(4)

MATERIALS AND METHODS

This study has been conducted for 8 months from Jan 2022 to August 2022 in the department of General Surgery in Gowridevi Medical College, we have included total no. of 44 patients in this study, out of these 44 patients. Males were 23, and Female were 21 we have obtained the consent from patient's relatives

by giving consent form in their local language. After taking care full history we have examined all the patients in details and advised for investigations, The investigations advised are, complete blood picture, random blood sugar, Blood urea, Serum creatinine, serum electrolytes, Blood grouping and Rh, typing,

plain X-ray abdomen and CT Scan Abdomen, Ultrasound abdomen. After collecting the data systemically, it is computerized by using MS office.

Table 1: Different Age Groups

Age In Year	No. of Patients. Male (23)	No. of Patients. Female (21)
20-29 Years	5 (21.7%)	4 (15.5%)
30-39 Years	4 (17.5%)	3 (10.5%)
40-49 Years	5 (21.7%)	5 (26.3%)
50-59 Years	3 (3.04%)	3 (5.5%)
60-70 Years	6 (26.8%)	6 (31.5%)

Table 2: Different Causes of Obstruction

Causes	No. of Patients. Male (23)	No. of Patients. Female (21)
Post Operative Adhesions	8 (34.7%)	9 (47.4%)
Hernia	9 (49.2%)	5 (26.4%)
Tumors and Other Causes	6 (26.7%)	7 (36.8%)

Table 3: Site of Obstructions

Site	No. of Patients. Male (23)	No. of Patients. Female (21)
Large Bowel	9 (39.23%)	8 (42.10%)
Small Bowel	14 (60.77%)	13 (68.34%)

Table 4: Different Symptoms

Symptoms	No. of Patients. Male (23)	No. of Patients. Female (21)
Pain Abdomen	21 (91.30%)	19 (90.4%)
Distention of Abdomen	20 (86.9%)	18 (85.6%)
Constipation	18 (78.2%)	15 (71.5%)
Vomiting and Others	17 (73.9%)	13 (61.9%)

RESULTS AND DISCUSSION

We have included 44 patients in this study out of these 44, 23 were males and 21 were female patients. The common age group is between 20 years and 70 years. Intestinal obstruction is little more common in Males than Females 53:47 (5), Bowel obstruction is more commonly seen in old age people, 5th and 6th decade 30.04% and 26.8% respectively. According to study conducted by B.T. Fevang, J. Fevang et al shows it is 33.2 and 29.8% respectively. (6) the common causes of bowel obstruction in our study are post operative adhesions 34.7% in Males and 47.4% in Females; Hernias 39.2% in Males and 26.4% in Females tumours and other causes are 26.07% and 26.8% respectively. The study conducted by K.S. Cross, J.G. Johnston et al shows that post operative adhesions are 39.2% and 42.6% respectively, and other causes are 21.0% and 29.3% respectively (7) Most commonly small bowel is involved in obstruction. In our study the ratio of small bowel obstruction to large bowel obstruction is 6:4 (8) the common symptoms in obstruction are pain abdomen, constipation, distention of abdomen, vomiting's and fever. In our study pain abdomen was noticed in 91.30% of patients, distension of abdomen in 86.9%, constipation in 78.21%, vomiting's and others seen in

73.9% (9). 3 patients died because of complications and other comorbid conditions like CAD, Renal failure. Intestinal obstruction remains one of the commonest causes of acute abdomen, worldwide mounting to 5% of emergency admissions. The pattern of intestinal obstruction varies from country to country and time to time within the same country. A steady rise in the number of major abdominal operations, together with earlier diagnosis and elective treatment of groin hernias and intra-abdominal malignancy, has resulted in a change in the causes of intestinal obstruction in Western and other developed countries over the past 50 years, when strangulated hernias accounted for half of the total cases. In underdeveloped and developing countries the number of patients with intestinal obstruction due to gut volvulus and strangulated hernia still remains high. Over the recent past however there have been changes in the etiology of intestinal obstruction in developing countries, and abdominal adhesions now tend to be the most common cause in the Western world, parts of Asia and the Middle East (10). Our patients differ from the west in various ways. For instance their mean age was 50.1 years (range 11 weeks–96 years) compared with 66.8 year in the west, while most of our patients

(35.7%) were aged between 40 and 60 (although they were slightly older than the patients in other reports from developing countries where the mean age was 39.6 years). With adhesive obstruction now becoming more frequent, this gender difference has decreased. In our study, 57.6% of patients were males as compared to 42.4% females. Fevang et al. in their study have reported the proportion of females with intestinal obstruction increasing from 29% in 1960 to more than 40% in 1990 (11). Around the turn of the century, adhesive obstruction became the most common cause of intestinal obstruction in the West with only a few isolated studies still showing obstructed hernia to be more common (12). However, in the developing world, though the incidence of adhesive obstruction has been showing a steady increase, most centers still report strangulated and obstructed hernias to be the most common cause of intestinal obstruction. Bjorg et al. in study of over 35 years have shown that the incidence of adhesions increased from 43% to 53% while that of incarcerated hernia decreased from 41% to 24% (13). In India, a study from Chandigarh described adhesions to be the cause in 27% patients compared to obstructed hernia in 22%, while a study from Calcutta reported obstructed hernia to be more common (35.9%) and from Pondicherry, of 572 patients reported, external hernia was seen 38% as compared to adhesive obstruction in 32% (14).

CONCLUSION

Compared to previous reports, post-operative adhesions have now become a common cause of intestinal obstruction in our tertiary care centre situated in a developing country. These were most commonly preceded by operations on the colon and rectum. Our overall mortality rate was comparable with those reported from the west. Old age, malignancy and strangulation were associated with a higher risk of mortality as has been the experience from other centers.

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