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PATTERN OF SMALL BOWEL OBSTRUCTION IN ADULTS

Aziz Ur Rehman, Mazhar Khan, Zahid Aman, Mohammad Zia Ul Haq, Siddique Ahmad, Sarfaraz Ahmad

Department of Surgery, Hayatabad Medical Complex Peshawar - Pakistan

ABSTRACT

Objectives: To compare and discuss the various pattern of causes of small intestinal obstruction.

Materials and Methods: This descriptive study was carried out in surgical unit Hayatabad Medical Complex Peshawar from July 2006 to December 2007. Fifty-four adults with age range of 15-70 years were included. All had Laparotomy for small bowel obstruction.

Results: There were 23 cases of adhesions and bands, 13 cases of abdominal tuberculosis, 10 cases of inguinal and femoral hernias, 3 cases of ileocaecal tumours, 3 cases of worm infestation and two cases of intussusception. Complication occurred in 21(38.8%) patients. Wound infection was the commonest in them. Mortality was 6%.

Conclusion: Adhesions and bands are more frequent causes of small bowel obstruction.

Keywords: Small intestinal, obstruction, Adhesion, Tuberculosis, Hernias, wound sepsis.

INTRODUCTION

Intestinal obstruction may be dynamic or adynamic affecting either small bowel or large bowel,[1,2] with 80% involving small bowel.[3]

Intestinal obstruction accounts for approximately 5% of all acute surgical admission[2,4,5]. Successful management requires early diagnosis and treatment with meticulous balance of fluid, electrolyte and if appropriate, timely surgical intervention[6,7,8,9]. Global as well as regional variations in the pattern of intestinal obstruction are well documented[10,11,12]. Variations in the disease pattern from time to time suffice the changing pattern and presentation[13,14]. This study was conducted to ascertain the pattern of causes of small intestinal obstruction.

MATERIAL AND METHODS

Fifty four patients having signs and symptoms of small bowel obstruction and confirmed by operation were recorded in this study which was carried out in the surgical unit Hayatabad Medical Complex from July 2006 to December 2007. The cases of large bowel obstruction and the cases of intestinal obstruction relieved by conservative management were excluded. All patients were promptly resuscitated, investigated and surgery was performed within 12 to 72 hours after admission.

Address for Correspondence:
Dr. Aziz Ur Rehman
Senior Medical Officer
Department of Surgery, Hayatabad Medical Complex Peshawar
Cell #: 0343-9643087
E-mail address: imfromhmc@hotmail.com

RESULTS

There were 32 male and 22 female patients. Male to female ratio was 1.00: 0.7. The age range was from 15-70 years with mean age 34 ± 16.7 SD years.

In this study, 30 patients (55.6%) were below 30 years of age while 24 (44%) were > 30 years of age. Abdominal pain, distension and vomiting were the commonest presenting features as shown in Table 1.

Table 1: Clinical Presentation

S. #	Presentation	No.
1.	Abdominal pain	54 (100%)
2.	Abdominal distension	49 (90%)
3.	Vomiting	42 (78%)
4.	Absolute constipation	37(68.5%)
5.	Dehydration	33 (61%)
6.	Fever	16 (29.6%)
7.	Mass right iliac fossa	8 (15%)
8.	Inguinoscrotal swelling	10 (18%)

Different causes leading to small bowel obstruction in this study are shown in Table 2. The commonest cause was adhesions and bands, tuberculosis was the second common cause and hernia was the 3rd common cause of intestinal obstruction.

The operative procedure performed is shown in Table 3. Postoperative complications were recorded in 21 cases i.e. 39.9%, in which the common complications were wound infection, chest infection, and leakage of anastomosis.

Table 2: Etiology Of Small Bowel Obstruction (n=54)

S. #	Causes of obstruction	No. of cases
1.	Adhesions and bands	23 (42.5%)
2.	Intestinal tuberculous stricture + ileocecal mass	13 (24.07%)
3.	Hernias	10 (18.51%)
4.	Tumours	03 (5.5%)
5.	Worm infestations	03 (5.5%)
6.	Intussusception	02 (3.7%)

Table 3: Operative Procedure

S. #	Procedure	No.
1	Adhesiolysis + band division	27 (50%)
2	Resection and end to end anastomosis	13 (24 %)
3	Right hemicolectomy	9 (17%)
4	Simple reduction & defect repair	5 (9%)
5	Enterotomy	3 (5.5%)

DISCUSSION

Intestinal obstruction is common in Pakistan and other tropical countries although it can occur through out the world. The delay in presentation increases the morbidity and mortality. The pattern of the intestinal obstruction shows regional diversity and variation from country to country.[1,5,6,10,14]

In Pakistan, the common causes of intestinal obstruction are adhesions, abdominal tuberculosis and obstructed hernias. In our study the commonest causes of small bowel obstruction were adhesions and bands, while abdominal tuberculosis being the 2nd most common cause.

In Punjab and Sindh abdominal tuberculosis is the commonest cause of small bowel obstruction, which is due to non compliance of the patient to therapy and poor socio economic condition[2,6]. In Balochistan obstructed hernias were the commonest cause of small bowel obstruction[11]. Strangulated hernia was the commonest cause of small bowel obstruction in Africa.[1] Mact Kieurezec and Carisan GL reported adhesions and bands as commonest cause of small bowel obstruction in UK.[12]

CONCLUSION

The pattern of causes of small bowel obstruction vary from country to country with adhesions and bands being common in our setup.

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