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Assessment of Conservative Management of Sub Acute Intestinal Obstruction in Medical College North India

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ABSTRACT

To assess conservative management in management of subacute intestinal obstruction. Fifty-four patients of subacute intestinal obstruction of both genders were recorded. Parameters such as symptoms, signs, etiology, conservative management was recorded. USG abdomen and CT abdomen were done to detect the cause of obstruction. Out of 54 patients, males were 30 (55.5%) and females were 24 (44.4%). Symptoms recorded were pain abdomen in 45, vomiting in 42, constipation in 54 and abdominal distension in 50. Signs were tenderness over abdomen in 34, mass per abdomen in 23, palpable/visible bowel loops in 35, exaggerated bowel sounds in 50 and presence of surgical scar over abdomen in 11 cases. Etiology was paralytic ileus in 7 cases, post-operative adhesions in 10, obstructed hernias in 6, sigmoid volvulus in 4, pancreatitis in 22 and blunt trauma abdomen in 5 patients. Surgical intervention was required in 6 cases. Adhesiolysis was performed in 2, herniorrhaphy in 1, sigmoidopexy in 1 and resection and anastomosis in 2 cases. The difference was significant ($p<0.05$). Subacute intestinal obstruction can be managed successfully by conservative management. Factors prompting surgery depends upon individual cases and the cause of obstruction.

INTRODUCTION

Intestinal obstruction is one of the most commonly encountered surgical entities in all age groups, which accounts for approximately 15 percent of patients visiting the emergency department with complaints of acute pain in the abdomen[1]. Even Ebers Papyrus (1550 BC) and Hippocrates have documented cases of bowel obstruction[2].The mode of presentation varies with underlying aetiology[3]. The complications associated with intestinal obstruction are sepsis, bowel ischemia and perforation[4]. There is significant decline in the morbidity and mortality associated with intestinal obstruction because of enhanced knowledge regarding pathophysiology, improvement of radiological techniques and better approach towards correction of fluid and electrolyte imbalance, administration of antibiotics for controlling bacterial infections, nasogastric decompression and various newer surgical techniques, yet it is a challenge to manage the condition effectively[5].

Subacute intestinal obstruction is usually applied to recurrent and intermittent obstruction. It may develop as acute obstruction and it will get relieved within a few hours spontaneously or after conservative management. The episodes are recurrent: the patient is well in between[6]. The intermittent nature of symptoms and signs delays diagnosis as well as definitive treatment. Radiological investigations usually diagnose it and in some cases, by diagnostic laparoscopy. The majority of patients are managed conservatively[7]. We performed this study to assess conservative management in management of subacute intestinal obstruction.

MATRIALS AND METHODS

After considering the utility of the study and obtaining approval from ethical review committee, we selected fifty- four patients of subacute intestinal obstruction of both genders. Patients' consent was obtained before starting the study. Data such as name, age, gender etc. was recorded. Parameters such as presenting complaints, presence of tachycardia, fever, and abdominal signs like abdominal distension, tenderness, presence of visible bowel loops, presence of guarding, rigidity, presence of any surgical scars, nature of bowel sounds was recorded. Digital rectal examination was done. Laboratory investigations such as haemogram, random blood sugar, serum electrolytes, blood urea and serum creatinine, urine routines, microscopy, etc. were also recorded. USG abdomen and CT abdomen were done to detect the cause of obstruction. Patients were initially managed conservatively. Patients were kept on nil per oral, nasogastric tube inserted for aspiration of gastrointestinal secretions, intravenous fluids were administered and correction of electrolyte imbalance. The results were compiled and subjected for statistical analysis using Mann Whitney U test. $p \leq 0.05$ was set significant.

RESULTS

Out of 54 patients, males were 30 (55.5%) and females were 24 (44.4%) (Table1). Symptoms recorded were pain abdomen in 45, vomiting in 42, constipation in 54 and abdominal distension in 50. Signs were tenderness over abdomen in 34, mass per abdomen in 23, palpable/visible bowel loops in 35, exaggerated bowel sounds in 50 and presence of surgical scar over abdomen in 11 cases. Etiology was paralytic ileus in 7 cases, post-operative adhesions in 10, obstructed hernias in 6, sigmoid volvulus in 4, pancreatitis in 22 and blunt trauma abdomen in 5 patients. Surgical intervention was required in 6 cases. Adhesiolysis was performed in 2, herniorrhaphy in 1, sigmoidopexy in 1 and resection and anastomosis in 2 cases. The difference was significant ($p<0.05$)(Table 2).

DISCUSSION

The diagnosis of intestinal obstruction at times poses a difficult problem, especially in those patients who present as subacute intestinal obstruction (SAIO) with atypical features due to which the diagnosis is delayed[8]. Hence, it is important for the treating physicians to weigh the risks of surgery with the drawbacks of initial conservative management[9].

SAIO implies incomplete obstruction. It has been defined in a number of ways and there are many confusions in the treatment protocols[10]. It is characterized by onset of symptoms like colicky abdominal pain, vomiting and abdominal distension along with continued passage of flatus and faeces beyond 6-12 hours[11]. The patient usually presents with recurrent and intermittent intestinal obstruction, the patient being well in between. SAIO may get relieved within few hours spontaneously/after conservative management or may progress to acute obstruction[12-13]. We performed this study to assess conservative management in management of subacute intestinal obstruction.

Our results showed that out of 54 patients, males were 30 (55.5%) and females were 24 (44.4%). Prakash *et al*[14] performed conservative management of subacute intestinal obstruction and its outcome. The incidence is high in patients of age group 41-50 years with Male: Female ratio is 2.1:1. The most common presenting symptom is pain abdomen (92%) followed by vomiting (84%). In our study, exaggerated bowel sounds (60%) are the most common physical finding. The most common cause of obstruction is Postoperative adhesions (36%) followed by obstructed

Table. 1: Patients distribution

Total-54		
Gender	Males	Females
Number (%)	30 (55.5%)	24 (44.4%)

Table. 2: Assessment of parameters

Parameters	variables	number	p-value
Symptoms	Pain abdomen	45	0.94
	Vomiting	42	
	Constipation	54	
	Abdominal distension	50	
Signs	Tenderness over abdomen	34	0.81
	Mass per abdomen	23	
	Palpable/visible bowel loops	35	
	Exaggerated bowel sounds	50	
	Presence of surgical scar over abdomen	11	
Etiology	Paralytic ileus	7	0.15
	Post-operative adhesions	10	
	Obstructed hernias	6	
	Sigmoid volvulus	4	
	Pancreatitis	22	
	Blunt trauma abdomen	5	
Surgical intervention	Adhesiolysis	2	0.17
	Herniorrhaphy	1	
	Sigmoidopexy	1	
	Resection and anastomosis	2	

hernias (22%). Out of 50 cases, 72 % of cases were managed successfully by conservative management. In the patients who were managed conservatively, most of them are due to postoperative adhesions. In the patients who underwent emergency surgical intervention, 50 % of cases operated on the 2nd day of admission. Most commonly done. Surgery include Adhesiolysis (28.6%) Herniorrhaphy (28.6%) and Resection and anastomosis (21.5 %).

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Surgical intervention was required in 6 cases. Adhesiolysis was performed in 2, herniorrhaphy in 1, sigmoidopexy in 1 and resection and anastomosis in 2 cases. Patanaik *et al*[16] in their study 57 patients above 10 years of age presenting with subacute intestinal obstruction were studied. Males were more affected than the females. Abdominal pain was the commonest symptom seen in 51 (89.4%) patients, followed by non-passage of faeces/flatus in 45 patients (78.9%) and vomiting seen in 39 (68.4%) patients. About 28 patients (49.1%) had undergone previous abdominal surgery, out of which 25 patients were operated for laparotomy. Out of the 57 patients, surgery was needed to relieve obstruction in 18 (31.6%) patients, the remaining 39 patients (68.4%) were managed conservatively. Most commonly performed procedure was adhesiolysis in 12 patients. Subacute intestinal obstruction continues to be one of the most common abdominal problems faced by general surgeons. Early clinical recognition, diagnostic tools and timely management are extremely important in diagnosing this clinical entity, there by reducing mortality and long-term morbidity. Fevang *et al*[17] evaluated the outcome after initial non-operative treatment in patients with small bowel obstruction (SBO). There were 166 cases of SBO. Twenty patients were operated on early among whom bowel was strangulated in 9. Among the 146 patients initially treated conservatively 93 (64%) settled without operation, 9 (6%) had strangulated bowel and 3 (2%) died. Of the 91 patients with partial obstruction but no sign of strangulation, 72 (79%) resolved on conservative treatment.

CONCLUSION

Subacute intestinal obstruction can be managed successfully by conservative management. Factors prompting surgery depends upon individual cases and the cause of obstruction.

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