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SURGICAL OUTCOME OF SIGMOID VOLVULUS BY PRIMARY ANASTOMOSIS AND RESECTION

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Abstract:

Objective: *To evaluate the outcome of resection and primary anastomosis in Sigmoid volvulus cases.*

Study Design: *A prospective case series study.*

Place and Duration: *In the Department of Surgery, Unit II of Services Hospital Lahore for one year duration from July 2017 to July 2018.*

Methodology: *All patients with Sigmoid volvulus and data were collected from all of them. Laparotomy was performed to the patients after the related examinations and preparations. Resection in the large intestine and primary anastomosis were performed with double-layer interrupted sutures. Patients were followed up for four weeks to record postoperative complications.*

Results: *The ages of 22 patients with sigmoid volvulus ranged from 48 to 70 years (mean age - 56.1 years). Men had dominance; The male to female ratio was 7: 1. One patient (4.5%) died from cardiac problems in the postoperative period. Four patients (18.2%) had wound infection and two patients (9.1%) had pelvic abscess; the second was rectally emptied with a satisfactory result.*

Conclusion: *Resection and primary anastomosis have positive results in sigmoid volvulus.*

Key words: *Intestinal resection, Volvulus sigmoid, wound infection, intestinal anastomosis, pelvic abscess.*

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INTRODUCTION:

Sigmoid volvulus is one of the most common causes of large bowel obstruction in many parts of the world. Complete volvulus results in closed bowel obstruction and early mesenteric vascular occlusion. It is more common in males and rarely seen in males[1-3]. Pre-existing causes include irregular bowel habits, tapes, adhesions, excessive colon and chronic constipation caused by a high sediment diet. The rotation almost always occurs counterclockwise.

Symptoms of sigmoid volvulus include abdominal pain and bloating, constipation and vomiting. The simple X-ray abdomen shows a substantially enlarged ring of the large intestine extending from the pelvis and extending obliquely to a dimension known as sigma on the upper side of the spine to the upper abdomen[4-6]. The barium enema is useful in diagnosis when suspected and may even be curative.

Management of the sigmoid colon volvulus is still controversial. The surgical procedure is based on the general condition of the patient, the viability of the intestine and the experience of the surgeon. Conservative methods include either flexible or rigid sigmoidoscopy, colostomy or laparotomy. Today, however, at one stage, intestinal resection and primary anastomosis are performed with the reduce results of the morbidity and mortality[7-9]. This study was performed to evaluate the results of sigmoid volvulus resection and primary anastomosis in our configuration.

MATERIALS AND METHODS:

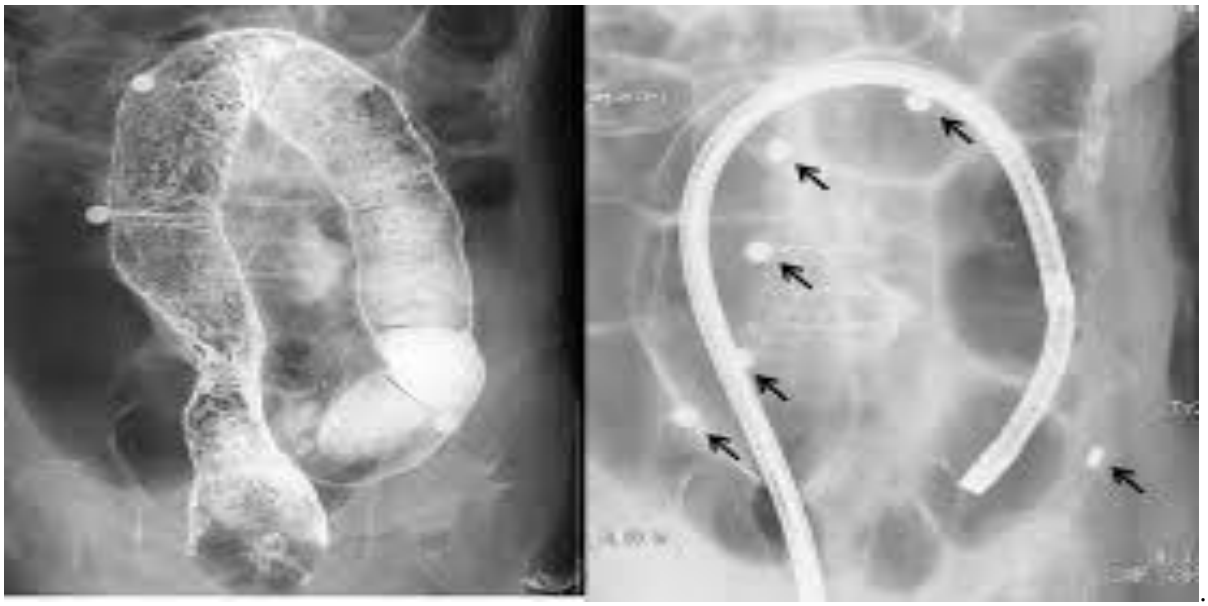
This prospective case series study included all patients presenting with sigmoid volvulus in the Department of Surgery, Unit II of Services Hospital Lahore for one year duration from July 2017 to July 2018. The diagnosis was later confirmed surgically based on clinical features and radiological examination.

In addition to the clinical study, all patients underwent examination and resuscitation before emergency surgery. In all patients, the large bowel was resected and an end-to-end anastomosis was performed using a 2-0 vicryl suture. Patients were followed for four weeks after discharge to record any complications.

RESULTS:

A total of 22 patients presented sigmoid volvulus during the study period. Their age ranged from 48 to 70 years, with a mean age of 56.1 years. All patients presented with severe abdominal pain, bloating and constipation. Nausea and vomiting were observed in 14 patients (63.6%). All patients were clinically dehydrated and five were with hypotension, tachycardia, and shock with cold, damp skin. Abdominal examination revealed a severe distention on the left and peristalsis in six patients. All patients showed tenderness in the abdomen and 12 (54.5%)

had guarding. In rectal examination, 14 patients (63.6%) had empty rectum. Radiological examination revealed large intestine in grossly distended state among 17 patients (77.3%) and distention of the small intestine in 3 patients. The sigmoid volvulus has been repositioned under radiographic contrast enema shown in figure1



Four (18.2%) patients had a conservative treatment for wound infection. In 2 (9.1%) patients, rectal pelvic abscess drained by ultrasonography. One patient (4.5%) died in this series. The hospital stay is between 9 and 24 days with an average of 12 days.

DISCUSSION:

The volvulus of the sigmoid column is a common cause of obstruction of the large intestine in our country. In this study, 70% of the patients came from urban and rural area as well as from remote areas of upper Punjab[10-11]. While the ratio of men to women is 7: 1 consistent with other studies reported in the country, the ratio of men to women in Indian studies is 2: 1. The mean age (56.1) of the patients in this study can be compared with many national and international studies[12-13]. The resection of the redundant sigmoid colon by end-to-end anastomosis was performed without any colostomy in all cases, which was contrary to the previously conserved classical conservative approach[14]. The main reason for this approach was the encouraging results of some international and local studies. This one-step procedure protects the older elderly patient against unnecessary and repeated hospitalization, complications of new surgical procedures, stress due to anesthesia and stoma formation[15]. On the other hand, while colopexy has a high rate of recurrence and mortality, colostomy is associated with home management, psychological stress and cost burden.

CONCLUSION:

In the light of positive results, it is recommended that resection and primary anastomosis should be the preferred treatment in most cases of sigmoid volvulus.

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