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Research Article

**STUDY TO KNOW THE EFFICACY OF TREATMENT OF  
SIGMOID VOLVULUS**<sup>1</sup>Dr.Assem Akram Butt, <sup>2</sup>Dr.Aysha Arshad <sup>3</sup>Dr.Mehdi Hassan<sup>1</sup>Bolan Medical College Quetta<sup>2</sup>Lahore Medical and Dental College<sup>3</sup>ELAM Cuba**Abstract:****Objective:** To evaluate the results of treatment in Sigmoid Volvulus cases.**Study Design:** A retrospective analysis of case series.**Place and Duration:** In the Surgical Department Unit II of Services Hospital, Lahore for three year duration from January 2014 to January 2017.**Methodology:** During the analysis time, we selected 67 patients presented with Sigmoid Volvulus. The patients records were retrospectively checked. Non-surgical methods such as barium and sigmoidoscopy have been tested in many cases to eliminate obstruction. Emergency surgery was performed in patients with peritonitis or non-surgical treatment failure.**Results:** 58.1 years was the patients mean age and the rate of males was 89.7%. 25% of patients had a similar attack history, 31.93% had comorbidity. The symptoms mean time was 44 hours and in shock there were 14.9% of the patients. The abdominal pain was the most common clinical symptom in 98.7%, constipation (91.93%), abdominal sensitivity (99.07%) and abdominal distension (96.0%). In 81.06% of the cases, the correct clinical diagnosis was made and a positive finding was found in 85.2% of the abdominal radiographs. Abdominal vertical and supine position radiographs, sigmoidoscopy and abdominal ultrasonography were used as diagnostic tools.**Conclusion:** In adult males, sigmoid volvulus is usually noted. The main problems are recurrence tendencies, comorbidity and shock.**Key words:** Volvulus, Large intestinal obstruction, sigmoid colon.**Corresponding author:****Dr.Assem Akram Butt,**

Bolan Medical College,

Quetta

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**INTRODUCTION:**

Sigmoid Volvulus is a rare but important cause of large intestine obstruction and constitutes 5% of cases. It is an emergency that requires diagnosis and early intervention. The large intestine mechanical obstruction often leads to proximal dilatation due to impaired venous, decrease arterial blood flow and mucosal edema. This increases the intestinal mucosa permeability which can lead to bacterial translocation, systemic toxicity, dehydration and electrolyte abnormalities. Intestinal ischemia can also cause fecal effusion and perforation in the peritoneal cavity. Sigmoid volvulus is a combination of the base of the proximal sigmoid and the descending colon, the base of the sigmoid mesocolon, and the base of the rectosigmoid composition. Although it usually occurs as a blockage of the large intestine, its diagnosis may be difficult.

**PATIENTS AND METHODS:**

This retrospective analysis of case series was held in the Surgical Department Unit II of Services Hospital, Lahore for three year duration from January 2014 to January 2017. The age, sex, location, previous or related problems, clinical features, radiological findings and diagnoses of 68 patients with sigmoid volvulus were evaluated. Non-surgical procedures (barium, soluble water and saline solution, hard

sigmoidoscopy) were analyzed for diagnosis and treatment after resuscitation and examinations. Emergency surgery was performed due to unsuccessful non-surgical detorsion, early recurrence or endoscopy in the intestinal gangrene. The characteristics of peritonitis, rectal examination of patients with melanotic stools and preoperative diagnosis as the first treatment were performed in emergency operations. Surgical procedures included a final colostomy and resection of the dilated edematous segment of the sigmoid colon by externalizing the ends as a mucus fistula and the Hartmann procedure.

**RESULTS:**

A total of 68 sigmoid volvulus (SV) cases were treated during the study period. The ages of the patients were between 45-88 years (mean age 58.1); the highest incidence was observed in the sixth decade of life (23 patients, 33.8%). Sixty one patients (89.7%) were male and 7 (10.3%) were female. Most of these (90%) belonged to the low socioeconomic class. Seventeen (25%) patients had a history of twisting augmented volvulus while 22 (32.3%) had other diseases such as hypertension, chronic obstructive pulmonary disease, diabetes mellitus, coronary heart disease, kidney failure and hemiplegia. The mean duration of symptoms was 43 hours (range 12 hours to 6 days). Ten (14.7%) cases had hypovolemic shock or toxic shock. The main clinical features are shown in Table I.

**Table I. Clinical Features of Sigmoid Volvulus (n=68)**

Clinical Feature	No.	%
<b>Abdominal pain</b>	<b>67</b>	<b>98.5</b>
<b>Abdominal distension</b>	<b>64</b>	<b>94.1</b>
<b>Constipation</b>	<b>60</b>	<b>88.2</b>
<b>Vomiting</b>	<b>49</b>	<b>72</b>
<b>Abdominal tenderness</b>	<b>58</b>	<b>85.3</b>
<b>Empty rectum</b>	<b>45</b>	<b>66.2</b>
<b>Decreased/Absent gut sounds</b>	<b>37</b>	<b>54.4</b>
<b>Increased gut sounds</b>	<b>18</b>	<b>26.5</b>
<b>Muscle guarding/Rigidity</b>	<b>17</b>	<b>25</b>
<b>Melanotic stools</b>	<b>12</b>	<b>17.64</b>

SV was confirmed by endoscopy or surgery in 88.2% (60) patients. In the intestine, a similar level of omega air / fluid formation, single or abdominal radiographs, bed sores and 58 (85.3%) were evaluated by the side of all patients with an enlarged sigmoid side showed signs of SV or colon. The ratio was 80.6%. Ultrasound examination was performed in 17 (25%) patients, resulting in a large dilatation of the gut lumen and severe edema of the sigmoid colon wall. After resuscitation, 50 patients (73.5%) underwent non-surgical procedures such as rigid sigmoidoscopy and dressing / saline enemata. Urgent surgery was performed in patients with intestinal gangrene or peritonitis or non-surgical treatment (47.7%).

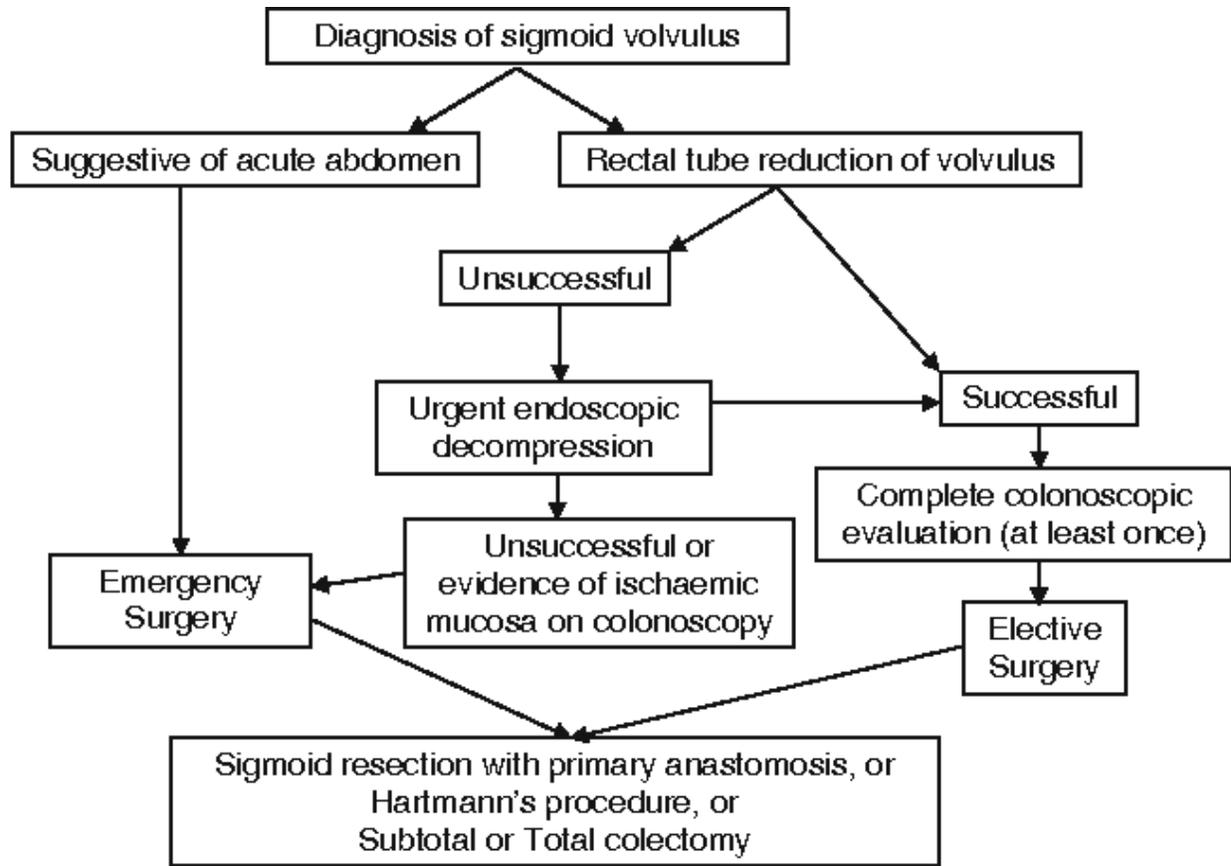
The anatomic predisposition factor (with a narrow base and long-term mesentery instead of a sigmoid) was found to be 79.4% of patients and postoperative adhesions were detected in 7.6% of patients. In this series, 33 (48.5%) patients were older than 60 years.

The mean duration of symptoms was longer than the smallest age group (39.4 hours) (42.8 hours); In addition, preoperative diagnosis was significantly lower (75.09% versus 81.1%) and surgical mortality was higher (23.91% versus 16.09%).

#### **DISCUSSION**

Sigmoid volvulus (SV) is an unusual but important form of intestinal obstruction in Africa, Asia, the Middle East, Eastern Europe, South America and Pakistan. SV training in Pakistan may be related to diet because it is common among workers and low-income groups where fiber diets are more common.

In adults > 58.1 years are common; The highest incidence was observed in 4 and 7 years of life. The gender ratio in the literature ranges from 2: 1 to 10:12, which is similar to the current sequence. An important predisposing factor in the development of VL is the presence of a sigmoid replacement column with a long mesentery and a narrow base and is quite common in our study.



Dietary diets rich in fiber or voluntary constipation habits cause dilation and expansion of the sigmoid colon. Other predisposing factors include adhesions, internal hernias, omphalomesenteric anomalies, intestinal malrotation, intussusception, appendicitis and carcinomas. In SV, the presence of previous sections or distortions and comorbidities has always been the main feature, as in this series. Late presentation is usually a problem due to the presence of diseases related to SV and different defecation habits. In our opinion, at the same time,

socioeconomic problems in developing or underdeveloped countries, as in our study. The mean symptom duration was 2 to 5 days. Other symptoms include vomiting, nausea, diarrhea, anorexia, rectal bleeding, and hematemesis, whereas acute abdominal pain and swelling of the SV constipation are the most common symptoms. Physical findings are usually flattened on the upper abdomen and asymmetric sensitivity, while additional pathological findings include intestinal sounds, earmold vacuum, abdominal mass peristalsis and feces smell can be breathable.



The presence of rectal melanotic feces or rebound tenderness and muscle protection may indicate gangrene or perforation and peritonitis. Simple abdominal radiographs show enlarged sigmoid colon and / or multiple fluid levels in the air of the large or small intestine. Signs of omega or horseshoe sign, peak signal, northern exposure sign, pelvic coffee bean sign and sign blank, signs of various radiological findings described in the literature. The flat abdomen was diagnosed by Predator and his colleagues by Arnold and Nance 90% and 61.5% of cases with 72.8% look and cleavage. In this series, 86.2% of cases were diagnostic. Öncü et al. According to clinical findings, 72.7% reported accurate diagnosis and radiographs were 90% in this series. In our opinion, urgent decisions for the right treatment are as important as the correct diagnosis of the SV. If the patient has peritonitis, a generally obstructive lumen is seen and may be successful in reducing SV. Studies in the diagnosis of SV may be used in water-soluble contrast media or barium. Endoscopy is another diagnostic method in SV. It is also useful to identify other causes of congestion. Flexible sigmoidoscopy or non-surgical colonoscopy detorsion is also recommended as the first choice in the treatment of SV.

#### CONCLUSION:

In all patients undergoing this procedure, sigmoidoscopy is diagnostic, with the spiral sphincter bending of the mucosa shows torsion, and the treatment in 78% of patients. Therefore, if there is no perforation and / or peritonitis, endoscopic procedures are more suitable for the diagnosis and treatment of SV.

#### REFERENCES:

1. Quénéhervé, Lucille, Caroline Dagouat, Marianne Le Rhun, Enrique Perez-Cuadrado Robles, Emilie Duchalais, Stanislas Bruley des Varannes, Yann Touchefeu, Nicolas Chapelle, and Emmanuel Coron. "Outcomes of first-line endoscopic management for patients with sigmoid volvulus." *Digestive and Liver Disease* (2018).
2. van der Naald, Niels, Marloes I. Prins, Kars Otten, Dayson Kumwenda, and Robert P. Bleichrodt. "Novel approach to treat uncomplicated sigmoid volvulus combining minimally invasive surgery with enhanced recovery, in a rural hospital in Zambia." *World journal of surgery* 42, no. 6 (2018): 1590-1596.
3. van der Naald, Niels, Marloes I. Prins, Kars Otten, Dayson Kumwenda, and Robert P. Bleichrodt. "Novel approach to treat uncomplicated sigmoid volvulus combining minimally invasive surgery with enhanced recovery, in a rural hospital in

- Zambia." *World journal of surgery* 42, no. 6 (2018): 1590-1596.
4. Rao, K.J., Podili, N.K. and Rajagopal, M., 2018. KEYWORDS Volvulus, Sigmoid, Colostomy, Hartmann's Procedure. *REVIEW OF SIGMOID VOLVULUS: A 5 YEARS EXPERIENCE IN TERTIARY CARE HOSPITAL, VISAKHAPATNAM*, (97631).
  5. Garfinkle, Richard, Nancy Morin, Gabriela Ghitulescu, Carol-Ann Vasilevsky, and Marylise Boutros. "From Endoscopic Detorsion to Sigmoid Colectomy—The Art of Managing Patients with Sigmoid Volvulus: A Survey of the Members of the American Society of Colon and Rectal Surgeons." *The American Surgeon* 84, no. 9 (2018): 1518-1525.
  6. Atamanalp, S. S. "Reply to 'Comments on new classification, treatment algorithm and prognosis-estimating systems for sigmoid volvulus and ileosigmoid knotting: necessity and utility'." *Colorectal Disease* (2018).
  7. Atamanalp, S.S., 2018. Reply to 'Comments on a new classification, treatment algorithm and prognosis-estimating system for ileosigmoid knotting: the role of sigmoid colectomy in recurrence'. *Colorectal Disease*.
  8. Wu, S., Sun, X., Yu, Y. and Shen, Y., 2018. Hirschsprung's Disease-Related Giant Sigmoid Volvulus Complicated by Refractory Hypertension in an Elderly Man. *The American journal of case reports*, 19, p.467.
  9. Sree MP, Rao YP. A COMPARATIVE STUDY OF DETORSION AND SIGMOIDOPEXYVS RESECTION AND ANASTOMOSIS FOR SURGICAL MANAGEMENT OF SIGMOID VOLVULUS. GLOBAL JOURNAL FOR RESEARCH ANALYSIS. 2018 Jul 30;7(6).
  10. Enevoldsen, Malene, and Alaa El-Hussuna. "Recurrence of Volvulus of Sigmoid Colon after Sigmoid Colon Partial Resection: A Systematic Review and Case Report." *EC Gastroenterology and Digestive System* 5 (2018): 787-798.
  11. Wilkinson-Smith V, Bharucha AE, Emmanuel A, Knowles C, Yiannakou Y, Corsetti M. When all seems lost: management of refractory constipation—Surgery, rectal irrigation, percutaneous endoscopic colostomy, and more. *Neurogastroenterology & Motility*. 2018 May;30(5):e13352.
  12. Brumbaugh, David, Laura Watne, Frederic Gottrand, Ann Gulyas, Ajay Kaul, Jacqueline Larson, and Jean Tomezsko. "Nutritional and Gastrointestinal Management of the Patient With Duchenne Muscular Dystrophy." *Pediatrics* 142, no. Supplement 2 (2018): S53-S61.
  13. Gascho, D., Schaerli, S., Tuchtan-Torrents, L., Thali, M.J. and Gorincour, G., 2018. Use of Postmortem Computed Tomography to Detect Bowel Obstruction and its Relationship to the Cause of Death. *The American journal of forensic medicine and pathology*, 39(1), pp.30-37.
  14. Valli PV, Pohl D, Fried M, Caduff R, Bauerfeind P. Diagnostic use of endoscopic full-thickness wall resection (eFTR)—a novel minimally invasive technique for colonic tissue sampling in patients with severe gastrointestinal motility disorders. *Neurogastroenterology & Motility*. 2018 Jan;30(1):e13153.
  15. Gibor, Udit, Zvi Perry, Sergey Domchik, Solly Mizrahi, and Boris Kirshtein. "Single Port and Conventional Laparoscopy in Colorectal Surgery: Comparison of Two Techniques." *Journal of Laparoendoscopic & Advanced Surgical Techniques* 28, no. 1 (2018): 65-70.