Sigmoid volvulus is the twist or rotation of the bowel on its mesenteric axis, either clockwise or anticlockwise. The most common sites of volvulus are the sigmoid colon and cecum. Sigmoid volvulus, first described by Von Rokitansky, is the worldwide incidence of sigmoid volvulus is not known. Various portions of the colon can be affected, such as the transverse colon, the splenic flexure, the cecum, and the ascending colon. The sigmoid colon is the most common site of volvulus.

**INTRODUCTION**

Volvulus is the twisting of the bowel on its mesenteric axis, either clockwise or anticlockwise. The most common sites of volvulus are the sigmoid colon and cecum. Sigmoid volvulus is the twist or rotation of the bowel on its mesenteric axis, either clockwise or anticlockwise. The most common sites of volvulus are the sigmoid colon and cecum. Sigmoid volvulus is the twist or rotation of the bowel on its mesenteric axis, either clockwise or anticlockwise. The most common sites of volvulus are the sigmoid colon and cecum. Sigmoid volvulus is the twist or rotation of the bowel on its mesenteric axis, either clockwise or anticlockwise. The most common sites of volvulus are the sigmoid colon and cecum. Sigmoid volvulus is the twist or rotation of the bowel on its mesenteric axis, either clockwise or anticlockwise. The most common sites of volvulus are the sigmoid colon and cecum.

**Discussion**

The primary objective of the study is to evaluate the most suitable procedure for management of patients with sigmoid volvulus. The surgical procedure depends upon the presence of sigmoid colon condition, time of presentation, extent of proximal colonic dilatation, co-morbid conditions, and the choice of surgeon.

**RESULTS**

Total 46 patients were included in the study of which 32 (69.56%) presented with gangrenous sigmoid colon on laparotomy and viable sigmoid colon was present in the remaining 14 (30.43%) cases (Table 1).

**Table 1: Intraoperative finding of sigmoid volvulus**

<table>
<thead>
<tr>
<th>Sigmoid colon condition</th>
<th>No of patients</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gangrenous colon</td>
<td>32</td>
<td>69.56%</td>
</tr>
<tr>
<td>Non gangrenous colon</td>
<td>14</td>
<td>30.43%</td>
</tr>
</tbody>
</table>

Out of these patients, 33 (71.74%) were males and 13 (28.26%) were females, ratio 2.54:1 (Table 2); most common affected age group were 51–60 years 26 cases (56.52%) and least in 30-40 years 1 case (2.17%) (Table 3).

**Table 2: Sex wise distribution**

<table>
<thead>
<tr>
<th>Sex</th>
<th>Number of patients</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>33</td>
<td>71.74%</td>
</tr>
<tr>
<td>Female</td>
<td>13</td>
<td>28.26%</td>
</tr>
</tbody>
</table>

**Table 3: Age wise distribution of sigmoid volvulus**

<table>
<thead>
<tr>
<th>Age groups</th>
<th>No of patients</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>30-40</td>
<td>1</td>
<td>2.17%</td>
</tr>
<tr>
<td>41-50</td>
<td>5</td>
<td>10.87%</td>
</tr>
<tr>
<td>51-60</td>
<td>26</td>
<td>56.52%</td>
</tr>
<tr>
<td>61-70</td>
<td>11</td>
<td>23.91%</td>
</tr>
<tr>
<td>71-80</td>
<td>3</td>
<td>6.52%</td>
</tr>
</tbody>
</table>

**Table 4 shows presence of co morbidities among the patients included in the study.**

<table>
<thead>
<tr>
<th>Co morbid conditions</th>
<th>No of patients</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hypertension</td>
<td>17</td>
<td>36.95%</td>
</tr>
</tbody>
</table>
Mortality rate is high in patients of gangrenous gut undergoing resection and anastomosis. i.e. 45.45%. Wound infection was more common in case of gangrenous gut undergoing colostomy (44.44%). Anastomotic leak was seen in patients of gangrenous gut with resection anastomosis i.e. 57.14%. All patients who underwent primary resection and anastomosis and had anastomotic leak were later converted into colostomy but none of them survived.

**DISCUSSION**

Total 56 patients admitted with sigmoid volvulus, of these 32 were diagnose complicated i.e. gangrenous on laparotomy during emergency and 14 cases were non-complicated i.e. with viable gut. These patients were admitted from July 2016 to November 2017. Male to female ratio in this study is 2.54:1. Male is commonly affected. The male preponderance awaits a satisfactory explanation but a wider more relaxed female pelvis allows for spontaneous reduction of sigmoid volvulus. Other studies have found that males have longer and narrower sigmoid mesenteries than females, which leads to axial rotation of sigmoid.

Plain abdominal X-rays are often diagnostic of volvulus. In our study the typical radiological “omega sign” or “coffee bean sign” was seen in most of patients. Presently multidetector CT performed with iv contrast is the preferred modality of evaluation in sigmoid volvulus.

Emergent resection carries a high mortality rate partly because of the poor general condition of the patient and toxemia from necrosis. Mortality following acute sigmoid volvulus is higher (36-80%) in the developed rather than the developing world (16-33%). Most authors agree that the definitive treatment of sigmoid volvulus is sigmoidectomy with or without anastomosis. However resection with primary anastomosis in emergency situation, when the general condition of the patient is suboptimal and bowel not prepared, carries an unacceptably high complication rate.

Gangrenous colon requires immediate excision. In the presence of gangrene, resection is followed by colostomy. Resection and primary anastomosis in case of gangrenous sigmoid colon carries an unacceptably high complication rate, when the general condition of the patient is suboptimal and bowel not prepared. In such situation end colostomy may play a protective role in avoiding anastomotic leakage. We performed maximum number of cases by primary resection and anastomosis in viable bowel loops (85.71%) and colostomy in case of gangrenous colon (56.25%).

Wound infection was the most common post operative complication (19.56%) and the mortality rate was around 24%, which is comparable when compared to similar studies. Anastomotic leak is the most important and dreadful complication in case of primary resection and anastomosis, we found 19.23%.

**REFERENCE**