



CLINICAL PROFILE OF PATIENTS WITH PERFORATION PERITONITIS.

Surgery

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ABSTRACT

Background: Peritonitis is common surgical emergency in which there occurs inflammation of peritoneum and peritoneal cavity. It is associated with increased morbidity and mortality. So the aim of the study was to evaluate the clinico-etiological profile of perforation peritonitis in our setting.

Methods: This study was conducted in a tertiary care centre of Kashmir, over a period of 2 years in which 100 patients diagnosed with perforation peritonitis were serially evaluated.

Results: In our study the dominant gender involved was male sex(68%). Mean age of study population was 34.12 years. The most common age group involved was 21-40 years (44%). Abdominal pain was the commonest presenting symptoms (100%), followed by nausea and vomiting (88%). The commonest site of pathology was gastroduodenal region (50%) and peptic ulcer disease was the most common aetiology confirmed.

Conclusion: Patients presenting to our emergency clinic with such clinical profile should be recognised promptly so as to rapidly develop a plan for further management and put our resources at best use.

KEYWORDS

Abdominal pain, Peritonitis, Perforation.

INTRODUCTION

Peritonitis is defined as inflammation of the serosal membrane that lines the abdominal cavity and the organs contained therein^{1,2}. Currently, peritonitis is organized into three divisions based upon the source and nature of microbial contamination. Primary peritonitis is an infection without any visceral perforation. Secondary peritonitis is the most common type of peritonitis all over the world. Secondary peritonitis follows an intraperitoneal source usually from perforation of a hollow viscus. Tertiary peritonitis develops following treatment failure of secondary peritonitis³.

Secondary peritonitis usually presents as acute generalized peritonitis which is a potentially life threatening condition. It is a common surgical emergency in most of the general surgical units, across the world⁴. It is often associated with significant morbidity and mortality^{5, 6}. Therefore it is important to have knowledge on the clinical presentation of such patients which will help in prompt decision making and proper utilization of the resources; and ultimately the outcome of the patients.

Aims and objective:

To study the clinico-etiological profile of patients with perforation peritonitis.

MATERIALS AND METHODS:

It was a prospective study conducted in the Department of surgery, GMC, Srinagar for a period of 2 years and included 100 patients. All the patients diagnosed as perforation peritonitis, including abdominal trauma and patients of both sexes were included. Each patient chart was studied for the bio data, detailed history and meticulous clinical examination. Investigations were performed to confirm the diagnosis including baseline tests, chest x-ray, abdominal x-ray, USG abdomen and pelvis and CT scan (if required). Once the diagnosis is confirmed patients were managed as per the institutional protocols and various etiological causes identified were recorded.

Results and observations

One hundred patients with secondary peritonitis were included in the

study. The study population included 68 males and 32 females, with male: female ratio of 2.1:1. Figure 1 shows gender distribution.

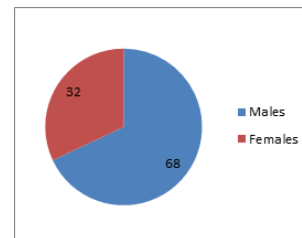


Fig.1 Gender distribution.

The mean age of the study patients was 34.12 years (range of 2 to 88 years old). Majority of patients were in the age group of 21-40 years, constituting 44% followed by age group 41-60, making 30%. Zero-20 age group with 18% patients; 61-80 age group with 5% patients and 3% patients above 80 years of age. (Table 2 & Figure 2)

Table 2. Age distribution.

Age in years	No. of patients	Percentage
0-20	28	28%
21-40	42	42%
41-60	20	20%
61-80	8	8%
81+	2	2%

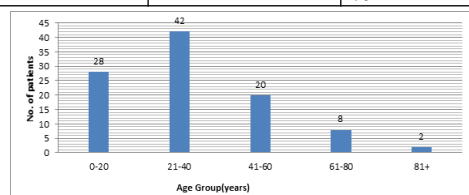


Figure 2. Age distribution.100

All the patients had history of pain abdomen (100%) followed by nausea/vomiting (88%), abdominal distention (80%), constipation (40%), fever (25%) and diarrhea (15%). (Table 3 & figure 3).

Table 3. Clinical presentation.

Clinical presentation	No. of patients	Percentage
Pain abdomen	100	100%
Nausea/ vomiting	88	88%
Abdominal distention	80	80%
Constipation	40	40%
Fever	25	25%
Diarrhea	15	15%

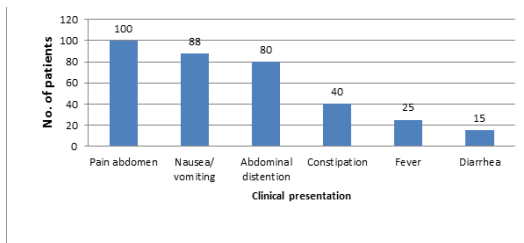


Figure 3. Clinical presentation.

The most common site of pathology was gastroduodenal (50%) followed by small bowel (jejunum/ileum) region (23%), appendix (22%) and large bowel in 5% patients. (Table 4 & figure 4).

Table 4. Site of perforation/pathology.

Site of perforation	No. of patients	Percentage
Gastric/ duodenal	50	50%
Small bowel perforation (Jejunal/ ileum)	23	23%
Appendix	22	22%
Large bowel	5	5%
Total	100	100%

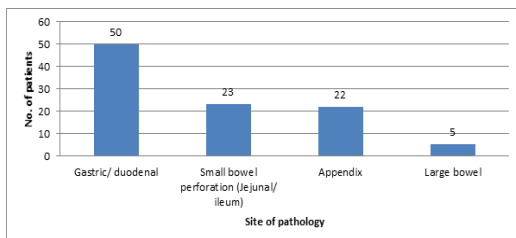


Figure 4. Distribution of patients as per the site of pathology.

Peptic perforation was the leading cause (50%) followed by appendicular perforation (22%) abdominal trauma (10%) and enteric perforation (10%) tubercular perforation (3%) gangrenous bowel (2%) malignant perforation of large bowel (2%) Meckel's diverticulum (1%).

Table 5. Etiology of peritonitis.

Cause	No. of patients	Percentage
Acid peptic perforation	50	50%
Appendicular perforation	22	22%
Meckel's diverticulum	1	1%
Abdominal trauma	10	10%
Enteric perforation	10	10%
Tubercular perforation	4	4%
Malignant perforation of large bowel	1	1%
Gangrenous bowel	2	2%
Total	100	100%

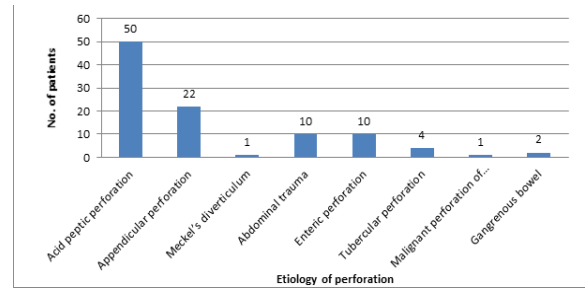


Figure 5. Shows the etiological distribution of the study patients.

DISCUSSION:

Since perforation peritonitis is commonly reported in our surgical emergency, it is important to describe and to know their clinical presentation so as to rapidly develop a plan for further management and put our resources at best use. The study included 100 patients with 74 males and 26 female patients. We analyzed that the most patient belong to 21 to 40 years of age group 44% followed by 41 to 60 years of age group 30%. Overall mean age of study population was 34 years. The most common presentation was abdominal pain 100% followed by nausea vomiting 88% and abdominal distension 80%. The commonest site of pathology noted was gastroduodenal region 50%. The most common etiology encountered was peptic perforation (50%) followed by appendicular perforation (22%). Different operating procedures that are primary closure, resection anastomosis, appendectomy with peritoneal lavage and peritoneal mopping, stoma formation or simple peritoneal drainage were performed according to the cause and severity of illness as per institutional protocols.

Gupta et al.7 in their study on 100 patients of perforation peritonitis reported that abdominal pain as the most common presenting complaints (100%) followed by vomiting (43%) and constipation (31%). The most common cause of perforation was peptic ulcer disease and the most common site of aetiology was gastroduodenal site (50%). They also reported that the APACHE II score as measured before treatment of abdominal sepsis correlated with the outcome.

Anand agarwal et al.3 their study on 100 patients with perforation peritonitis also reported mean age of study population as 37.57 years with 76 males and 24 females. Peptic perforations were found to be the major group (39%). The most common presenting symptoms reported were abdominal pain (100%), followed by vomiting (57%) and constipation (24%) similar as our observation. It was also noted that the patient having APACHE II score more than 10 had significant higher incidence of postoperative complications as compared to patients having APACHE II score less than 10.

In a similar study by S.Sahu et al.8 on 50 patients with secondary peritonitis reported that a mean age of 38.12 years. The commonest presenting symptom being abdominal pain (100%) followed by distension (82%). The most common cause of secondary peritonitis was perforation of first part of duodenum (42%).

CONCLUSION :

- On analysis of our study following conclusions overdrawn
- Secondary peritonitis was common in males (74%). It is more common in age group of 21-40 years (44%) followed by 41-60 years age group (30%).
- The most common cause of secondary peritonitis was peptic perforation (50%), followed by appendicular perforation (22%). Gastroduodenal region is the most common site of perforation.
- Abdominal pain was commonest presenting symptom (100%) followed by nausea/vomiting (88%) and abdominal distension (80%).

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