

**Clinical study on perforation peritonitis - A study on 100 cases**

<sup>1</sup>Dr. Naveen Lohar, Senior Resident, Department of General Surgery, RNT, Medical College, Udaipur, Rajasthan

<sup>2</sup>Dr Satyam Shukla, Resident, General Surgery, Department of General Surgery, S.P. Medical College and A.G of hospitals Bikaner, Rajasthan

**Corresponding Author:** Dr Satyam Shukla, Resident, General Surgery, Department of General Surgery, S.P. Medical College and A.G of hospitals, Bikaner, Rajasthan

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**Abstract**

**Background:** Generalized peritonitis as a result of gastrointestinal perforation is a common surgical emergency in India. The present study was conducted to understand the spectrum of perforation peritonitis in terms of etiology, site of perforation and surgical treatment.

**Methods:** This study has been conducted on 100 cases of perforation peritonitis admitted in PBM hospital Bikaner, fulfilling the criteria was selected for the study.

**Results:** Out of 100 patients, there were 87 males and 13 females. Gastric perforation was the most common type. In our study, a variety of operative procedures were performed depending on the patients general condition, peritoneal contamination, site of perforation, gut viability, and surgeon’s decision.

**Conclusions:** More commonly affects males than females. typhoid, trauma, tobacco chewing, smoking, alcohol, inadvertent use of analgesics are most common predisposing factors for perforated peritonitis and patients inability to get proper and complete treatment is responsible for perforation. Early diagnosis of

perforation peritonitis, emergent and appropriate surgical procedure, prompt treatment for enteric fever and avoidance of various predisposing factors can help to reduce the morbidity and mortality associated with this global disease

**Keywords:** Perforation peritonitis, Clinical study, Site

**Introduction**

Peritonitis that occurs due to hollow visceral perforation is a term frequently encountered in surgical practice. It is defined as the inflammation of the serosal membrane which lines the abdominal cavity and the organs contained within it. Introduction of an infection through a bowel perforation into the otherwise sterile peritoneal ambience & introduction of a chemical irritant like gastric acid from a perforated ulcer are the common causes of peritonitis. The various modes of presentation of cases might mislead the diagnosis of its origin. The spectrum of causes of perforation in tropical countries is still different from its western counterpart. Contrary to the western countries where lower gastrointestinal tract perforations preponderate, the majority of cases in India occur due to upper gastrointestinal tract perforations.<sup>1</sup>

This disease has been known to mankind since the days of Hippocrates. Hippocrates described Hippocrates facies in 400 BC. Earlier in the year 1727, Rawlenson was the first to clearly describe the signs and symptoms of gastric ulcer and peritonitis.<sup>2</sup>

### Materials and Methods

This study has been conducted on 100 cases of perforation peritonitis admitted in PBM hospital Bikaner, fulfilling the criteria were selected for the study.

#### Inclusion Criteria

- Clinical /Radiologically proven cases of perforation peritonitis

### Results

Table 1: Demographic profile

Mean age	59.23±11.32 Yrs
Male : Female	87 : 13
Rural : Urban	44 : 56

Table 2: Anatomical sites of perforation

Anatomical site	No of cases	Percentage
Stomach	40	40.00
Duodenum	5	5.00
Jejunum	2	2.00
Terminal ileum	35	35.00
Caecum	7	7.00
Aappendix	8	8.00
Meckel s	2	2.00
Not identified	1	1.00

Table 3: Etiology

Etiology	No of cases	Percentage
Peptic ulcer	45	45.00
Enteric fever	35	35.00
Traumatic	2	2.00
Tubercular	5	5.00

- Age > 13 yrs, irrespective of sex

#### Exclusion criteria

- Perforation peritonitis due to penetrating trauma
- Primary peritonitis,
- Post op peritonitis.

All patients were subjected to Biochemical investigations, Chest X Ray, Abdominal X Ray erect view, USG abdomen and pelvis. After confirming the diagnosis Emergency Laparotomy and drainage was done. Depending on the site of perforation, appropriate treatment protocol was adopted

Appendicular	8	8.00
Meckels diverticulum	1	1.00
Intestinal obstruction	4	4.00

Table 4: Surgical procedure

Etiology	Primary repair	Omental patch	Resection & anastomosis	Appendectomy	Ileostomy
Peptic ulcer	0	45	0	0	0
Enteric fever	25	0	5		5
Traumatic	1	0	1	0	0
Tubercular	0	0	3	0	2
Appendicular	0	0	0	8	0
Meckels diverticulum	0	0	1	0	0
Intestinal obstruction	0	0	0	2	2

**Discussion**

Perforation peritonitis is one of the most common surgical emergencies in developing nations like India.<sup>1</sup> Maximum cases of perforation peritonitis are male as some behaviours, such as tobacco chewing, smoking, drinking alcohol and outdoor work are more frequent among men, thus increasing the risk of PUD and perforation and also traumatic perforation, especially in young adults.

Most consistent feature is the pain and it is present in almost all the patients.<sup>3</sup> In the present study all the patients had pain abdomen (100%), followed by abdomen distension (95%), constipation (88.00%) and vomiting was present in 22.00% cases.

According to the site, gastric perforation was the most common type (40.00%), which were mainly due to acid peptic disease caused by either inadvertent drug (NSAIDS) intake or H. pylori infection followed by trauma and malignancy. Jejunal and ileal perforations were due to typhoid, tuberculosis and trauma. Appendicular perforations were the result of acute

appendicitis and large bowel perforations can be due to malignancy or trauma.

Similar observations were noted by Jhobta et al in their study on 504 patients.<sup>4</sup> In our study, a variety of operative procedures were performed depending on the patients general condition, peritoneal contamination, site of perforation, gut viability, and surgeon’s decision.

**Conclusion**

More commonly affects males than females. typhoid, trauma, tobacco chewing, smoking, alcohol, inadvertent use of analgesics are most common predisposing factors for perforated peritonitis and patients inability to get proper and complete treatment is responsible for perforation. Early diagnosis of perforation peritonitis, emergent and appropriate surgical procedure, prompt treatment for enteric fever and avoidance of various predisposing factors can help to reduce the morbidity and mortality associated with this global disease.

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