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Clinical Study of Non Traumatic Causes and Management of Generalized Peritonitis

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I. INTRODUCTION

Gastro-intestinal perforation is a common emergency encountered in a surgeon's practice with having a high morbidity and mortality leading to peritonitis. It is defined as "Inflammation of the serosal membrane that lines the abdominal cavity and the organs contained with in". Peritonitis is often caused by introduction of an infection into the otherwise sterile peritoneal environment through perforation of bowel, introduction of a chemically irritating material, such as gastric acid from a perforated ulcer. Causative factors and site of perforation vary enormously. The different modes of presentation of cases may be misleading the diagnosis of its origin. Perforation of stomach and small intestine is on the increase. An increasing proportion of elderly
patients in western societies and availability of powerful NSAIDS continue to provide a fertile ground for upper gastro-intestinal tract ulceration and its complications. Smoking2 and use of non-steroidal anti-inflammatory drugs are important risk factors for perforation. Perforation is usually seen in 3rd-4th decades, with a male
preponderance and the epidemiological trend is not the same worldwide. The spectrum of etiology of perforation in tropical countries continues to be different from its western counterpart. There is decrease in incidence in the west but in some countries, it has been on rise. Stress has been mentioned a possible cause.

A small bowel perforation carries high degree of mortality and morbidity. However, the introduction of drugs like Chloramphenicol, Amoxicillin and newer generation fluroquinolones and cephalosporin has lowered the incidence of small bowel perforation and mortality due to it.

Generally, in duodenum, anterior ulcer perforates and posterior ulcer bleeds. Typhoid ulcer perforations are in distal Ileum. Tuberculosis also commonly affects ileum, proximal colon and peritoneum. Risk factors are mainly immunosuppression, smoking, alcohol, tobacco chewing and poor management of enteric fever. The main aim of treatment is to control sepsis and treat the underlying cause. Surgery plays important role in the management of perforations.

II. AIM &OBJECTIVE OF THE STUDY

To study the different causes, clinical manifestations and management of generalized peritonitis except trauma

III. METHOD OF DATA COLLECTION

All patients admitted and treated for perforation secondary to non-traumatic hollow viscus perforation in surgical units of prathima institute of medical sciences, karimnagar during the period of august 2020 – October 2022. A detailed history was taken and all the patients were subjected to thorough clinical examination.

Patients subjected to laparotomy are followed in post-operative period to know the complications, morbidity and mortality rates. General condition at the time of admission was monitored by noting presenting complaints, pulse, BP, respiratory rate, hydration status. Operative findings were recorded. Necessary surgical intervention done is recorded; post operatively patients will be followed up for any complications. Each case will be studied as per the proforma. **Type of study**: Cross sectional observational study

Inclusion criteria

• Age group : 20-80 years

• All patients presented with generalized peritonitis of non-traumatic causes.

Exclusion criteria

• Cases of traumatic perforative peritonitis.

• Cases with previous history of abdominal surgeries

IV. RESULTS

60 patients presenting to Prathima institute of medical sciences, karimnagar with generalized peritonitis secondary to non-traumatic hollow viscous perforation were studied.

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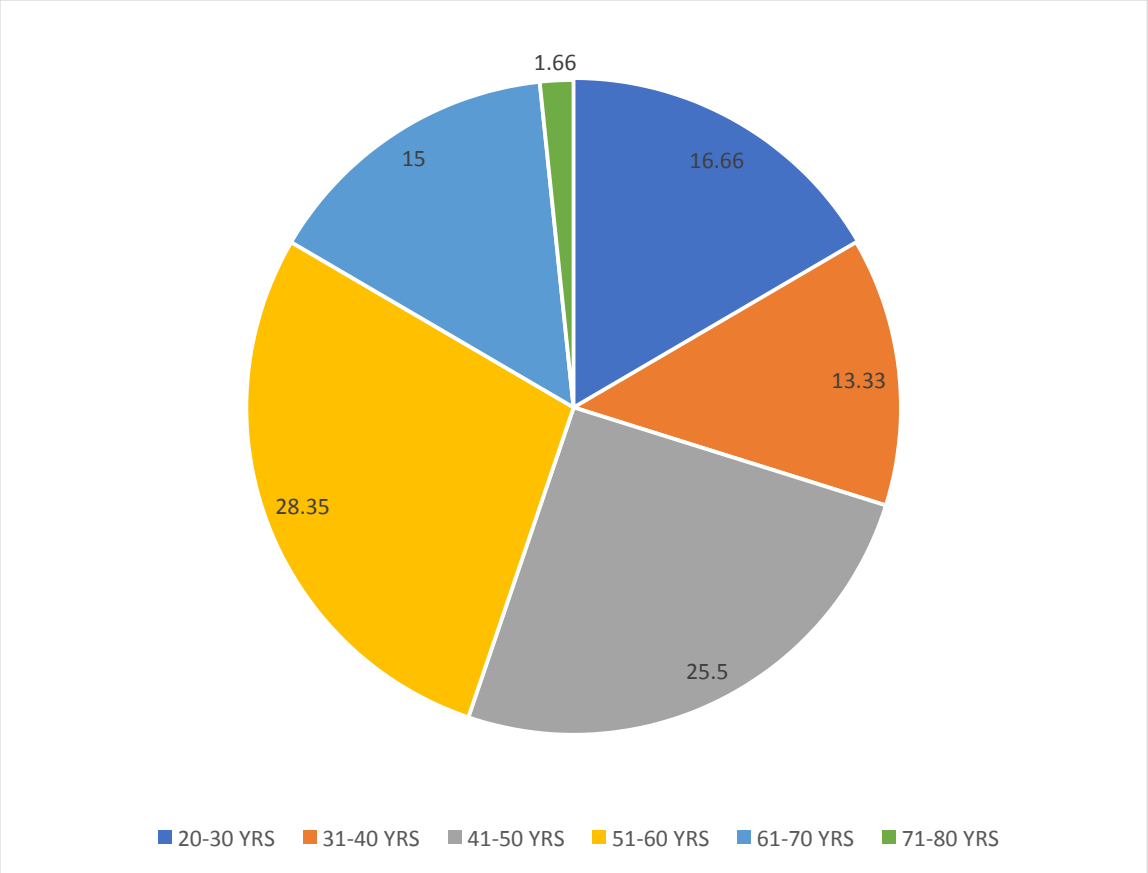
PIE CHART SHOWING DISTRIBUTION OF CASES ACCORDING TO AGE IN PERCENTAGES:



The most common age group was 40-60 yrs (53.3%) in the present study.

DISTRIBUTION OF GENDER ACCORDING TO ETIOLOGY (n= 60)

CAUSES	**MALES**		**FEMALES**		**TOTAL**	
	NO.	**%**	**NO.**	**%**	**NO.**	**%**
DUODENAL ULCER PERFORATION	8	16.66	2	16.66	10	16.66
GASTRIC ULCER PERFORATION	20	41.66	3	25	23	38.33

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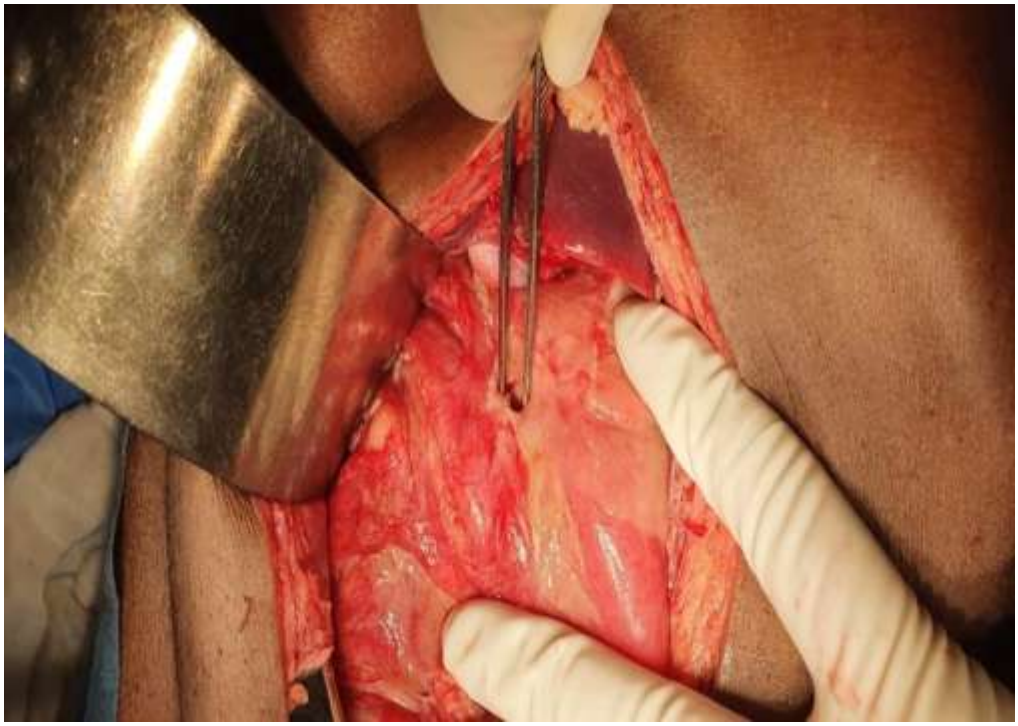
CAECAL PERFPRATION	3	6.25	0	0	3	5
ILEAL PERFORATION	5	10.45	0	0	5	8.33
APPENDICULAR PERFORATION	8	16.66	7	58.34	15	25
COLONIC PERFORATION	2	4.16	0	0	2	3.34
GALL BLADDER PERFORATION	2	4.16	0	0	2	3.34
TOTAL	48	80	12	20	60	100

In this study 48 cases were males (80%) and 12 cases were females (20%). Major etiological factor noted is gastric perforation and next is appendicular perforation



Gastric perforation

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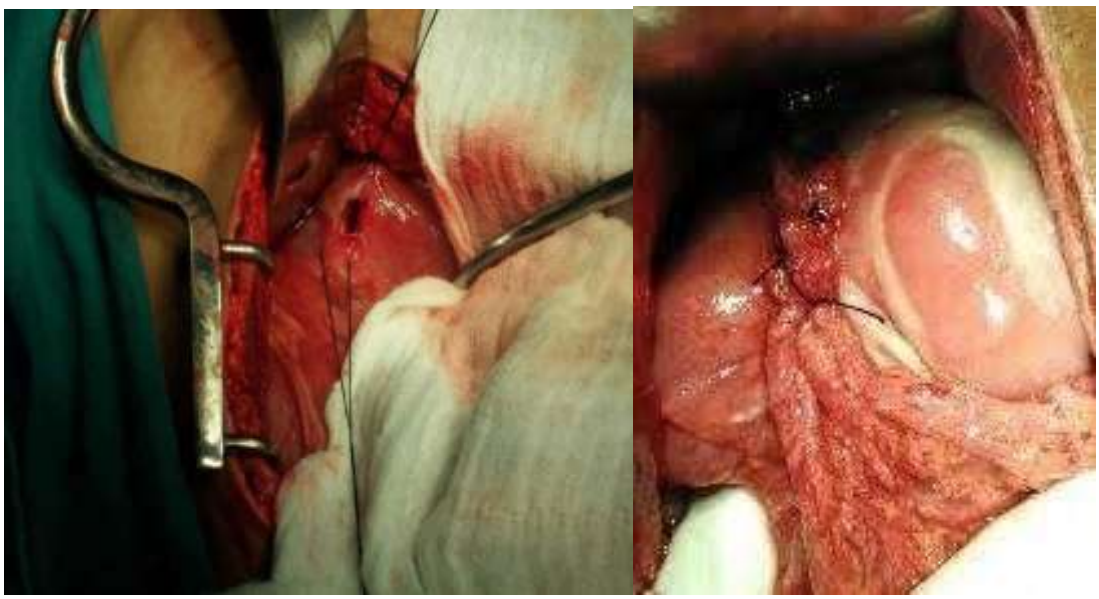
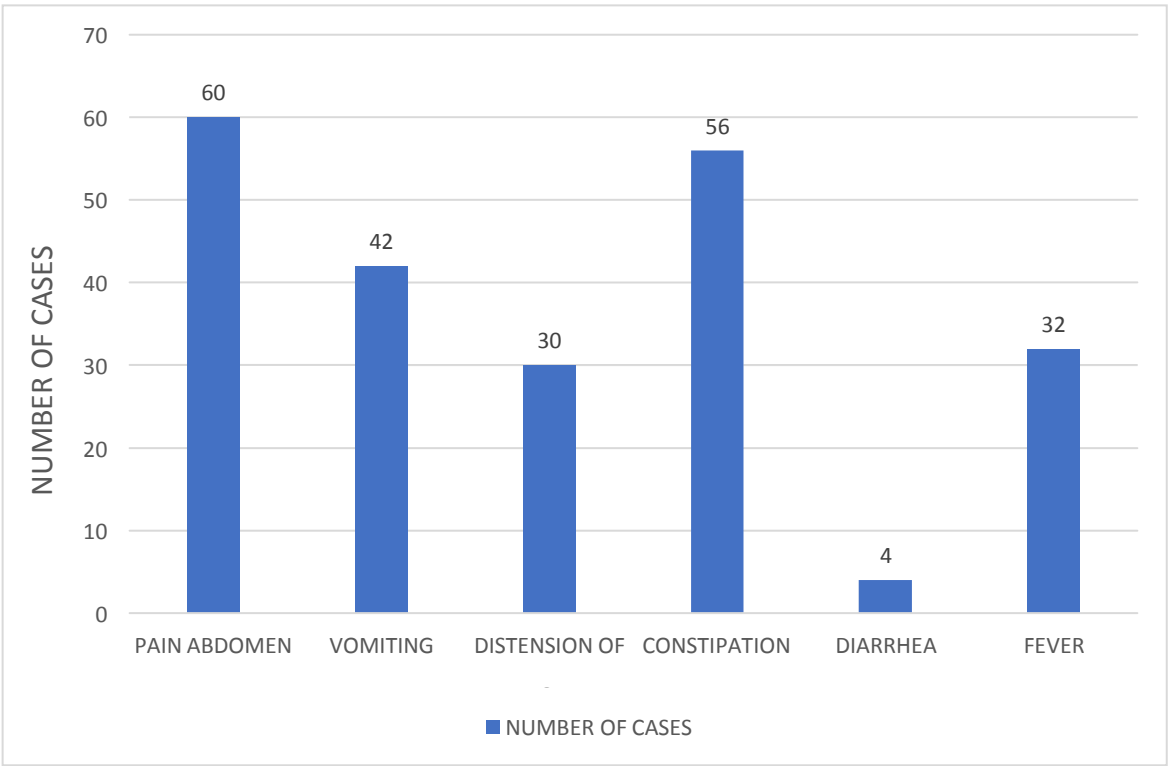


peptic ulcer perforation closure by Grahams patch

DISTRIBUTION OF CASES ACCORDING TO SYMPTOMS



In this study pain abdomen was the predominant symptom and was presented in all cases (100%). The next common symptom was constipation (93.9%) followed by vomiting (70%) distention of abdomen (50%).

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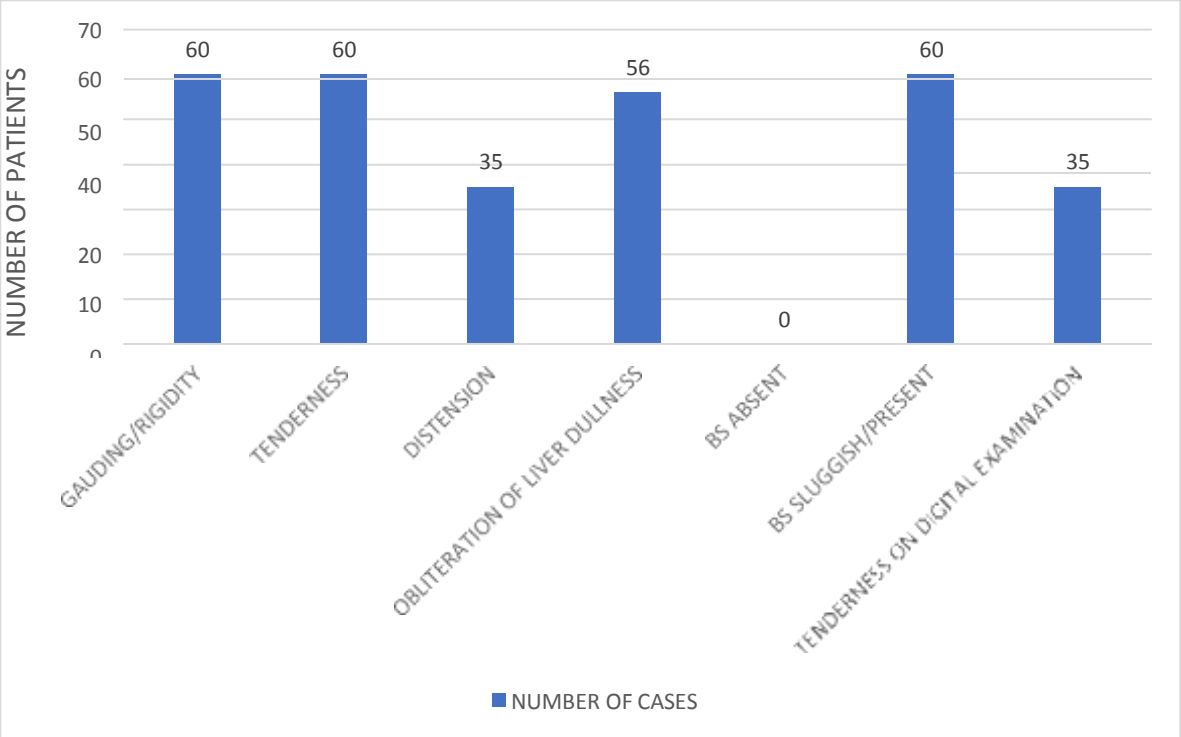
DISTRIBUTION OF CASES ACCORDING TO SIGNS



In this study GUARDING/RIGIDITY was seen in all cases (100%). Tenderness was present in all cases (100%) at the relevant quadrant. Obliteration of liver dullness was seen in (93%) of cases. Bowel sounds are absent in all cases. Distension &tenderness on DRE was found to be in (58%) of cases.

DISTRIBUTION OF CASES ACCORDING TO TYPE OF SURGERYPERFORMED

SURGERY	**NUMBER OF CASES**	**PERCENTAGES**
SIMPLECLOSURE WITH GRAHAM'S PATCH	33	55
RESECTION WITH END TO END ANASTOMOSIS AND LOOP ILEOSTOMY/END COLOSTOMY	9	15

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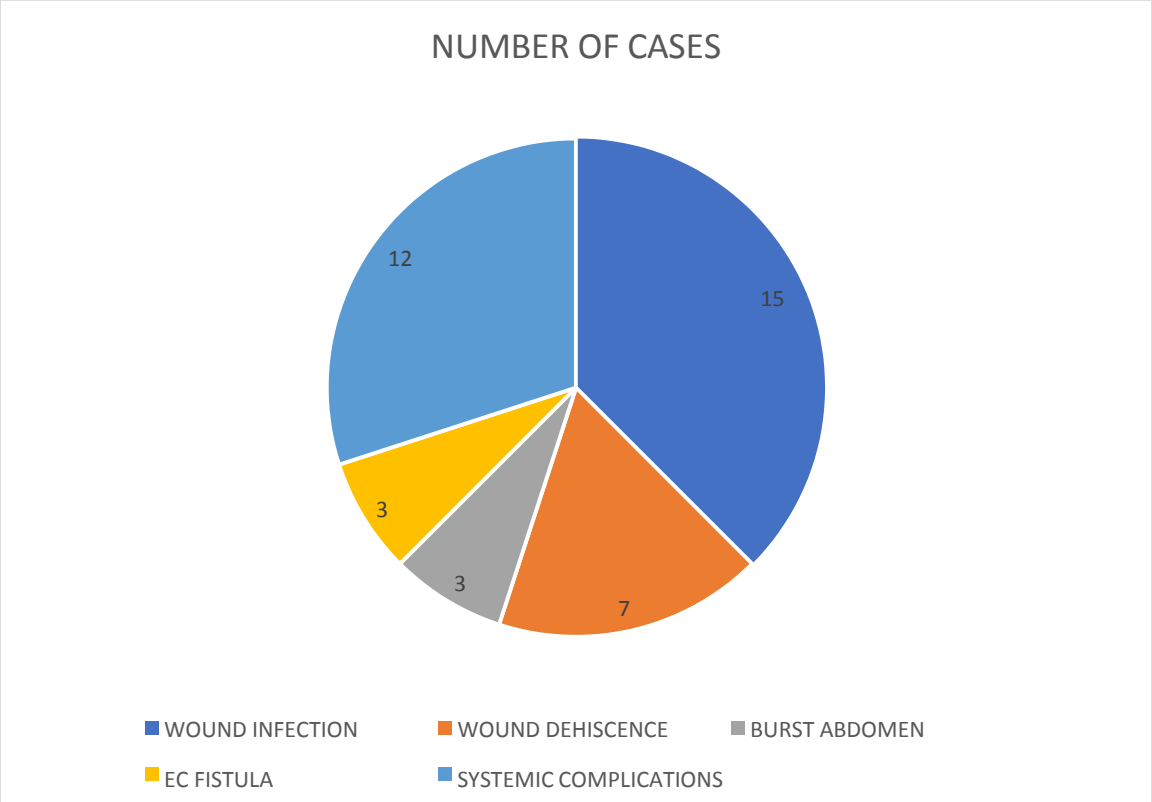
RESECTION OF TERMINAL ILEUM(5 CMS)WITH CAECECTOMY WITH LOOP ILEOSTOMY AND END COLOSTOMY	1	1.67
APPENDICECTOMY WITH DRAINAGE	15	25
CHOLECYSTECTOMY WITH DRAINAGE	2	3.33
TOTAL	60	100

In this study: 33cases (55%) underwent simple closure with mental patch. 9 cases (15%) underwent resection with end-to-end anastomosis &loop ileostomy/end colostomy. 15cases (25%) underwent appendectomy with drainage. 2cases (3.33%) underwent cholecystectomy with drainage. One case (1.66%) underwent resection of terminal ileum (5cm) with CECECTOMY with loop ileostomy and end colostomy.

PIE CHART SHOWING DISTRIBUTION OF CASES ACCORDING TO COMPLICATIONS

In this study the commonest complication were wound infection (25%) and systemic complications (20%) followed by wound dehiscence (11.6%), burst abdomen (3%), ECfistula (3%).



V. CONCLUSION

- Peritonitis is one of the most important emergency surgical conditions.
- Pain abdomen is the most common presenting symptom in non-traumatic perforation peritonitis followed by constipation, distension of abdomen and vomiting.
- Erect abdominal x ray, USG abdomen, are very useful investigation for diagnosis in non-traumatic perforation peritonitis
- Primary closure of perforation was the most common procedure employed.
- Resection and anastomosis is also done for bowel perforation.
- With the available effective acid reducing drugs, definitive surgery is not mandatory for peptic ulcer perforation.
- The most common cause of perforation peritonitis is due to peptic ulcer perforation followed by appendicular and duodenal perforation.

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