

RECENT TRENDS IN PEPTIC PERFORATION

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ABSTRACT

Background: The peptic perforation is one of the commonest abdominal surgical emergencies. Common causes are H.pylori, increased inadvertent use of NSAIDS, smoking and stress of modern life. During last few years there has been great revolution in availability of the newer broad spectrum antibiotics, better understanding of disease, effective resuscitation, prompt surgery under modern anaesthesia techniques, and intensive care unit resulted in reducing the mortality.

Aims & Objective: To study the recent trends in peptic perforation.

Material and Methods: This prospective study was carried out in the department of surgery during period from 1st May 2009 to 30th November 2011. All were indoor patients with diagnosis of peptic perforation in stomach and/or duodenum excluding other sites. Each patient was study in detail with relevant clinical history, examination, laboratory investigations and management. The study comprised of total 50 patients operated for peptic perforation by various modalities.

Results: The middle age group was commonest. Smoking, alcohol and stress were common etiological factors. The perforation was common in anterior surface of the first part of duodenum. Wound infection and bronchopneumonia were common post-operative complications.

Conclusion: The duration of perforation more than 24 hours and size of the perforation more than 1 cm has increase morbidity & mortality. Early diagnosis and prompt management of shock & septicaemia is important for better prognosis of patients. The simple closure with omentopexy of peptic perforation still remains the first choice as a treatment. H-pylori eradication treatment is mandatory after simple closure of the perforation to prevent recurrence of ulcer.

KEY-WORDS: Peptic Perforation; Etiological Factors; Emergency Surgeries; H. pylori Treatment

Introduction

The perforation of stomach & duodenal ulcer is one of the commonest abdominal surgical emergencies. One specific etiological agent cannot be incriminated in the causation of this particular disease. Common causes^[1] are H. pylori, increased inadvertent use of NSAIDS, smoking and stress of modern life. During last few years there has been great revolution in availability of the newer broad spectrum antibiotics, better understanding of disease, effective resuscitation, prompt surgery under modern anaesthesia techniques, and intensive care unit resulted in reducing the mortality.^[2] The aims & objectives of this study are (1) to study predisposing factors and incidence for peptic ulcer disease and peptic perforation (2) to study etiopathogenesis of it (3)

to study patient presentation and manifestation (4) to study management of acute presentation of peptic perforation patients (5) to study various modalities of treatment (6) to study post-operative complication in operated cases of peptic perforation.

Materials and Methods

This prospective study was carried out in the department of surgery during period from 1st May 2009 to 30th November 2011. All were indoor patients with diagnosis of peptic perforation in stomach and/or duodenum excluding other sites. Each patient was study in detail with relevant clinical history, examination, laboratory investigations and management. The study comprised of total 50 patients operated for peptic

perforation by various modalities. The selection criteria for the patient were (1) complain of upper abdominal pain (2) on examination- severe epigastric tenderness (3) X-ray- free gas under dome of diaphragm (4) Ultrasonography of abdomen – mild to moderate free fluid either in pelvis or Morrison pouch (5) per-operative finding- peptic perforation in stomach and/or duodenum. The selected patients had been operated thereafter in form of different modalities like, (a) simple closure with omental graft^[3] (b) definitive surgery with simple closure (c) laparoscopic closure^[4]. The definitive surgery with simple closure includes simple closure + gastrojejunostomy + vagotomy, simple closure + gastrojejunostomy, simple closure + partial gastrectomy, simple closure + antrectomy + vagotomy and simple closure + pyloroplasty + vagotomy. All the patients were observed post-operatively for complications like, paralytic ileus, pulmonary complications, wound infection, septicaemia etc. All the patients were received anti H. pylori treatment^[5] post-operatively.

Results

The commonest age group was from 41-60 years which reflect the correlation between age and etiological factors (Table 1). Due to stress and bad habits, the incidence was common in labours and executives (Table 2). Smoking and alcohol are commonest etiological factors as it was present in 76% of patients (Table 3). In the case of peptic perforation, pain in abdomen is the commonest symptom (Table 4). In 82% of patients, the perforation was in the anterior wall of the first part of duodenum (Table 5). The wound infection and bronchopneumonia were common post-operative complications. All patients were presented with acute peritonitis and operated in emergency which may lead to such complications (Table 6).

Table-1: Age Incidence

Age (in years)	No. of cases
1-10	0
11-20	2
21-30	8
31-40	8
41-50	14
51-60	10
> 60	8

Table-2: Occupation Incidence

Occupation	No. of cases
Labour/ Executive	32
Farmer	3
House-wife	6
Student	3
Retired	6

Table-3: Relation with Smoking and Alcohol

History of smoking and/or alcohol	No. of cases
Present	37
Absent	13

Table-4: Symptoms of Perforation

Symptoms	No. of cases
Pain in abdomen	50
Nausea & vomiting	47
Fever	21
Distension of abdomen	05

Table-5: Site of Perforation

Site of Perforation	No. of cases
First part of duodenum in anterior wall	41
Pyloric antrum in anterior wall, body of stomach near lesser curvature in anterior wall	09

Table-6: Post-Operative Complications

Post-Operative Complications	No. of cases
Bronchopneumonia	8
Wound infection	6
Fever	5
Paralytic ileus	1
Intraperitoneal infection (pelvic abscess)	0
Reexploration	0
Death	2

Discussion

The data were derived from the study of 50 cases of peptic perforation operated in emergency and compared with other studies. The highest incidence of peptic perforation was observed in 5th decade of life, which is a peak active period. This may be due to stress & strain during that period.^[6,7] The perforation was more common in male compared with female because of more association with smoking & alcohol.^[8] It was noticed that perforation occurred in the patients belonging to poor socioeconomically class^[9], who are manual workers (unskilled workers). Out of 50, 37 patients had a history of smoking and/or alcoholism. It showed that incidence is more in smokers & alcoholics.^[10] Large group of patients were presented to hospital within 6 hours in which the prognosis was excellent.^[11,23] Pain was the main presenting symptom in all the cases with

mainly acute onset.^[12] The commonest site of the perforation was at anterior wall of the first part of duodenum.^[13] The outcome of simple closure with omental graft was excellent as compared with definitive surgery.^[14] Most common post-operative complication was bronchopneumonia followed by wound infection. Two patients were died within 96 hours of post-operative period. These patients were presented with severe shock and septicaemia and died because of multiorgan failure.^[15] All remaining 48 patients were advised anti H. pylori treatment with omeprazole, amoxicillin and metronidazole for two weeks, followed by proton pump inhibitor for four weeks.^[16]

Conclusion

The duration of perforation more than 24 hours^[17] and size of the perforation more than 1 cm^[18] has increase morbidity & mortality. Early diagnosis and prompt management of shock & septicaemia is important for better prognosis of patients.^[19] The simple closure with omentopexy of peptic perforation still remains the first choice as a treatment.^[3] H-pylori eradication treatment is mandatory after simple closure of the perforation to prevent recurrence of ulcer.^[21]

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