

Treatment of Selected Cases of Perforated Peptic Ulcer Disease with Conservative Measures

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ABSTRACT

Background: Perforated peptic ulcer is an emergency condition worldwide. The series comprises study of 100 cases of peptic ulcer perforation by conservative management.

Objective: The objective of this study is to find out the treatment outcome of selective cases of perforated peptic ulcer disease with conservative measures.

Method: This prospective study was conducted at Surgery Department of M. Abdur Rahim Medical College Hospital, Dinajpur, Bangladesh for a period of July 2008 to July 2009. The cases were selected by special inclusion and exclusion criteria.

Results: All patients were presented with acute upper abdominal pain, most were in their fourth decade and came to the hospital around twenty four hours of their onset of pain. Diagnosis was made on clinical grounds and confirmed by radiological and imaging examinations. Resuscitative measures were taken in all cases in the form of IV fluid, nasogastric suction, antibiotics and analgesics. The study was designed to treat all the patients conservatively and accordingly all were given conservative regimen up to 24 hours. There after they were assessed clinically. Great deterioration was found in 12 patients and 18 patients showed no improvement who were operated immediately. Conservative

measures were continued for 70 patients who responded smoothly with few minor complications. The mortality was 6.33% in the cases treated operatively after failing conservative management.

Conclusion: In this series there is a strong association between age of the patient, duration of acute illness and outcome. It is suggested that treatment of selected cases of perforated peptic ulcer disease with conservative measures is safe and effective.

Keywords: Peptic, Conservative, Surgical, Perforation.


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INTRODUCTION

Peptic ulcer disease is very common in Bangladesh. Among the complications of peptic ulcer disease, perforation is one of the commonest acute abdominal emergencies encountered in surgical practice, affecting mainly the middle age group. Mortality & morbidity of peptic ulcer disease is accounted by haemorrhage, perforation, obstruction & sometimes by surgical procedures which are often necessary for their treatment. Of these perforation is potentially the gravest. With the introduction of H₂ receptor antagonist there is a significant reduction of elective surgical cases of peptic ulcer disease & their complications.¹ However the incidence of perforation has not changed appreciably. Surgery is the conventional form of treatment for peptic ulcer disease perforation that causes significant postoperative mortality & morbidity. In the era of modern surgery people don't want to go

through the open surgical procedure and there is an inclination towards minimal invasive or non-invasive surgery. We usually consider surgical repair and thorough peritoneal toileting as a sole option of treatment for peptic ulcer perforation without categorizing the patients according to severity of the disease, age of the patient or duration of illness and general condition of the patient. In developed countries the frequency of peptic ulcer disease complication is very rare and their surgical complications reduced to minimum because of their door to door health facilities and technical development in surgical field. They commonly repair and do toileting laparoscopically. But in developing countries like Bangladesh where health facilities are not so developed, open surgical repair and toileting is the choice of treatment and consequently still there are significant postoperative mortality and

morbidity. Nearly 50 years ago Taylor established an argument for non-surgical approach to perforated peptic ulcer disease², which includes active nasogastric suction, resuscitation, antibiotics and antisecretory therapy with a good result in selected cases. If we can stratified our patients according to the severity of disease, age of the patients, associated co-morbidity, duration of illness and general condition of the patients, perhaps conservative treatment may be an alternative option of avoiding the grave consequences of surgery in selected cases. There is a study of 285 cases of conservative regimen for management of peptic ulcer disease perforation, carried out in different district hospitals of Bangladesh from 1989 to 1996, showed no mortality with minimum morbidity.³ The aim of this study is to treat the selective cases of perforated peptic ulcer disease with conservative measures as an alternative option for conventional surgical treatment.

OBJECTIVE

The objective of this study is to find out the treatment outcome of selective cases of perforated peptic ulcer disease with conservative measures.

MATERIALS AND METHODS

Type of Study: A prospective study.

Place of Study: M. Abdur Rahim Medical College Hospital, Dinajpur, Bangladesh.

Period of Study: July 2008 to July 2009

Sample Size: 100

Inclusion Criteria

- Age: Less than 50 years
- Short history of perforation
- Small hydropneumoperitoneum on admission
- Good general health

Exclusion Criteria

- Elderly - above 50 years
- Diabetic
- Huge hydropneumoperitoneum on admission
- Debilitated and ill health
- Established bacterial peritonitis

Data Collection Method: Data collected from the patient in a prescribed protocol.

Data Analysis: All data were analyzed by standard statistical tools.

RESULTS

Table 1 is showing that total number of patients in this series was 100. Age varied from 18 to 50 years. The average age was 32 years. Maximum number of patients falls into 4th decade.

Figure 1 shows that out of 100 patients, 96 were male and only 4 were female. And male female ration is 24:1. Figure 2 is showing that out of 100 cases 73 patients belong to poor socio economic group, 23 came from average and 4 from the high group.

In table 2, the relation with some etiological factors like smoking, fasting, stress and anxiety states, ulcerogenic drugs such as NSAIDs and steroids were established in most patients. 54 patients were chronic smokers, 15 were fasting in Ramadan month, 28 gave history of taking NSAIDs or steroids like drugs, acute stress or anxiety status were reported in 3 cases.

Figure 3 shows that peptic ulcer was present in 86 cases with a duration ranging between 1 to 3 years in majority of cases. Previous history of haematemesis or melaena was recorded in 8 cases. No peptic ulcer like symptom was found in 16 cases representing perforation of so called silent ulcer or acute peptic ulcer.

Table 1: Age incidence (n-100)

Age in years	Number of patients
10-20	4
21-30	23
31-40	43
41-50	30

Table 2: Incidence of etiological factor (n=100)

Factors	Number
Smoking	54
Fasting	15
NSAIDs & steroids	28
Stress & anxiety	03

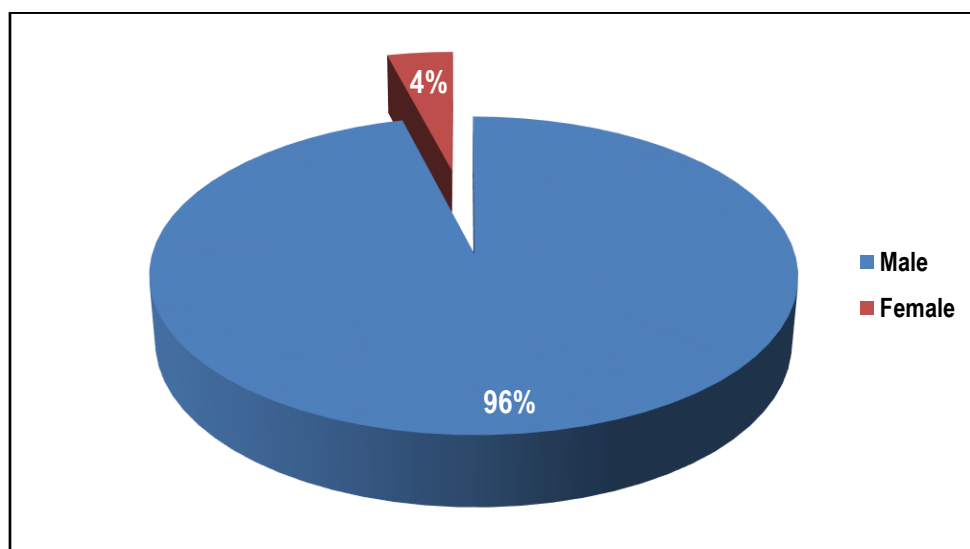


Figure 1: Sex incidence

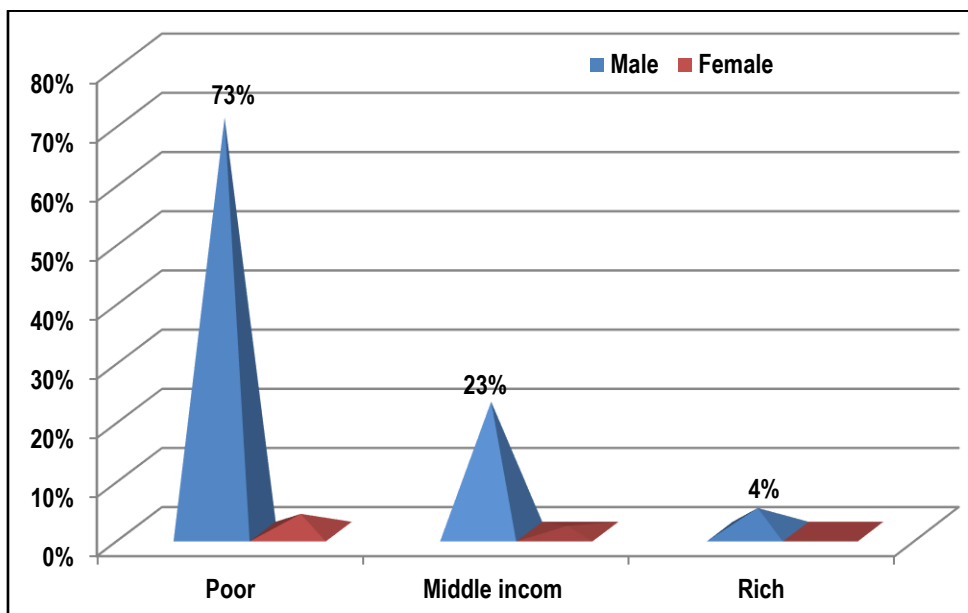


Figure 2: Socio-economic status

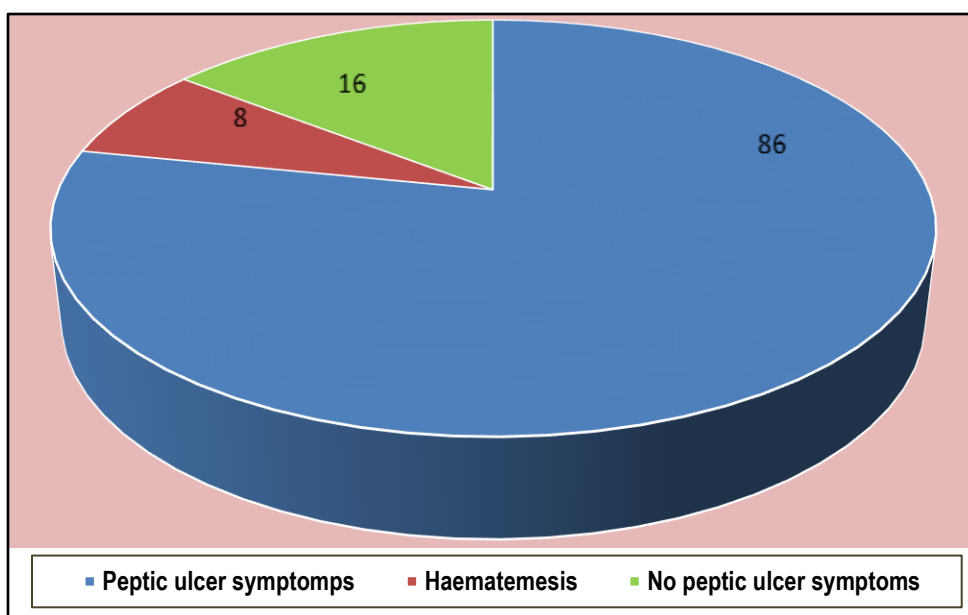


Figure 3: Previous peptic ulcer diathesis

DISCUSSION

There is an ongoing debate that whether perforated peptic ulcers should be treated surgically or nonsurgically. Most of the surgeons still prefer surgical option^{4,5} although non-operative treatment has been proved to be both safe and effective in selected patients. It has been estimated that half of the perforation seal by themselves⁶ and a postoperative trial comparing conservative with surgical treatment in perforated peptic ulcer disease has shown no advantage of surgical treatment with morbidity and mortality.⁶ In cases when the patient is haemodynamically stable and mild peritoneal symptoms, conservative treatment can be tried under strict clinical surveillance of a senior surgeon.⁷ It has been established that with nasogastric decompression, substitution of fluids and electrolytes, a proton pump inhibitor treatment, the patients should improve within 12 hours.^{7,8} In most of these cases the leakage, proven by air under the diaphragm has already been sealed and surgery remains unnecessary. The concept of non-operative treatment is very old, in 1935 Wangensetean advised

against operation in seriously ill patients whose admission to hospital had been delayed. For such cases he recommended continuous nasogastric suction to promote or support natural closure of the perforation.² From time to time at emergency operation, it has been observed that perforation has been sealed by fibrinous adhesion to the liver or omentum, from there a loose term "leaking perforation" has been kept in literature to include a group of cases in which leakage has in fact sealed". Sometimes in routine operation, upper abdominal adhesions have given the evidence that a past perforation was without recognition.⁹ Thus it has been recognized that a perforation may close spontaneously. The intensity of the pathological process therefore ranges widely; at one end the scale is the small duodenal perforation in a healthy person with an empty stomach while at the other end is the large gastric perforation in an elderly with full stomach and poor general condition. Nevertheless, in most cases time factor is the most important consideration. Though gastric aspiration is useful, objective is different in early and late cases. In an early case

aspiration is employed to promote prompt sealing of the perforation, but in late cases the idea is to prevent re-infection of the peritoneal cavity whether the perforation seals or not. The question of peritoneal soiling may bring a debate but it mien nasogastric suction, antibiotic therapy and suppression of gastric acid secretion by H₂ blockers can prevent this. Study showed that high risk patients with peptic ulcer perforation can be managed effectively by percutaneous abdominal drainage supported by conservative treatment.¹⁰

CONCLUSION

The non-operative treatment is always a safe and effective approach for treating perforated peptic ulcer patients in selected cases. Our study showed the strong association between age of the patient, duration of acute illness and outcome. It also showed that high risk patients with peptic ulcer perforation can be managed effectively by percutaneous abdominal drainage supported by conservative treatment. So we can conclude that conservative care in selected patients with peptic ulcer perforation is a reliable, efficient, and secure method of treatment.

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