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Research Article

**NON-SURGICAL TREATMENT OF PERFORATED PEPTIC
ULCER: AN ALTERNATIVE DEFINITIVE TREATMENT**Dr Umer Anwar¹, Dr Tashfeen Farooq¹, Dr Muhammad Hasnain²¹ Foundation University Medical College² House Officer, Benazir Bhutto Hospital, Rawalpindi

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Abstract:

Introduction: Peptic perforation is a common surgical case that occurs as an acute abdomen. Fortunately, perforation, which is potentially the most serious complication for a patient with an ulcer, is rare. It probably does not affect more than 2% of patients with peptic ulcer disease. Therapy options accepted in perforated peptic ulcer are simple closure or immediate action. Conservative / non-surgical treatment originally recommended by Wangenstein was proposed as the preferred treatment for peptic ulcer pierced by Taylor in 1956.

Material and method: This study is a retrospective prospective study conducted with the diagnosis and determination of dry peptic perforation and review of patient records. In the prospective study 25 patients the study groups who presented as peptic perforation to be sealed and/or hemodynamically stable patients with peptic perforation and/or with other serious illness when the risk of surgery is prohibitive.

Place and Duration: In the Surgical Unit I and Medical Unit II of Benazir Bhutto Hospital, Rawalpindi for one year duration from February 2018 to February 2019.

Objectives and tasks: Achieving efficacy and safety of conservative / non-surgical treatment of perforated peptic ulcer, as well as observing complications leading to morbidity and mortality. It was also aimed at achieving and assessing the criteria used in the conservative treatment of peptic perforation.

Results: In 75 cases, non-surgical treatment was preferred. 60% (80%) of the total was cured by non-surgical treatment. Six patients (8%) underwent surgical intervention and were considered to be unsuccessful in conservative treatment, 4 patients (5.33%) experienced complications and the mortality rate was 9.33%.

Key words: Peptic perforation, dry perforation, non-surgical treatment.

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INTRODUCTION:

Peptic perforation is a common surgical case that occurs as an acute abdomen. This is one of the most common complications of peptic ulcer along with bleeding. Surgical and non-surgical strategies for perforated peptic ulcer disease were only developed in the second half of the 19th century. Fortunately, perforation, which is potentially the most serious complication for a patient with an ulcer, is rare. It probably does not affect more than 2% of patients with peptic ulcer disease. The risk of puncturing an untreated peptic ulcer is around 5% throughout your life. Prospective studies have confirmed that comorbid medical disease, preoperative shock and an independent risk factor predict a poor outcome. People with all three factors have a much higher risk of dying. Aging, widespread peritoneal pollution and a short pre-operative history are also important, but not independent factors. Mortality is unusually high in high-risk patients undergoing surgery. Therapy options accepted in perforated peptic ulcer are simple closure or immediate action. Conservative / non-surgical treatment originally recommended by Wangenstein was proposed as the preferred treatment for peptic ulcer pierced by Taylor in 1956.

Pathological basis of non-surgical treatment of perforated ulcer:

It is based on a series of pathological events in untreated cases that the contents of the stomach flow from perforation into the peritoneal cavity. If the leakage is small, the body's natural protection, in which the network tries to maintain the infection, takes action, local peritonitis occurs, causing reactionary paralytic intestinal obstruction, which helps prevent the spread of infection by stopping peristalsis. . In addition, the peritoneum contributes to the defensive part through a narrow network of blood vessels that expands due to inflammation and is rich in antibodies that can protect the peritoneal cavity from infection for a significant amount of time. Perforation is prevented by inflammatory exudate around the perforation and fibrin, which affect adjacent peritoneal surfaces so that both can stick together. The spontaneous one was connected in a few hours and the internal organs were tightly connected. [Hermon Taylor 1957].

The main factor opposing this defense mechanism is the continuous or repetitive flow of content through the perforation, which causes a large effusion in the peritoneal cavity, which is infected and tends to dissolve fibrin. bacterial toxins and leukocytes. Peritoneal surfaces may not adhere, and the

perforation will remain open, and general peritonitis will be repaired, causing the patient to die within three days. A classic way to check for fluid leakage through an opening is to cover it with a seam. However, the same effect can be achieved by keeping the stomach empty, sealing the perforations and minimizing clinical management. The stomach is empty with continuous nasogastric suction, and conservative maintenance therapy does not contain anything from the mouth, intravenous fluids, antibiotics, proton pump inhibitor or H2 blocker and careful observation.

This treatment principle is currently applied in the following situations:

- The anterior ulcer is a perforated ulcer that penetrates the peritoneal cavity but is sealed by the network or surrounding tissue.
- The patient is hemodynamically stable.
- Hospitalized patients with other serious diseases when the risk of surgery is excessive.

Although satisfactory results have been reported today, most surgeons patients at high risk of late-discovered perforation, hemodynamically stable patients without general signs of peritonitis or closed perforation.

The main contraindications to conservative treatment are patient incompatibility, unsuccessful nasogastric intubation and late presentations.

Theoretical critique of dysfunctional method:

- Aspiration will not be successful when perforation occurs with a stomach filled with food or liquid
- It is difficult to predict which ulcer will close by itself
- In general, insufficient diagnostic tests are carried out for successful reasons.
- Diagnosis can be ignored in cases of acute perforated appendicitis, cholecystitis, diverticulitis and distilled intestine.
- Malicious perforation is indistinguishable.
- Conservative treatment is not recommended for all perforated peptic ulcers, but it is reasonable to offer as long as strict criteria and rules are followed.

OBJECTIVES AND OBJECTIVES

- To achieve efficacy and safety of conservative / non-surgical treatment of perforated peptic ulcer, as well as to observe complications leading to morbidity and mortality
- Access and evaluation of criteria used in the conservative treatment of digestive perforation.

MATERIAL AND METHOD:

This study is a retrospective and prospective study conducted at the Surgical Unit I and Medical Unit II Benazir Bhutto Hospital, Rawalpindi for one year duration from February 2018 to February 2019, by reviewing the symptoms and results of dry peptic perforation and reviewing patient data. A retrospective study of 50 patients with dry peptic perforation admitted to the hospital, was thoroughly examined in terms of history, clinical examination and tests such as ultrasound abdomen and chest x-ray. In the prospective study 25 patients the study groups who presented as peptic perforation to be sealed and/ or haemodynamically stable patients with peptic perforation and/or with other serious illness when the risk of surgery is prohibitive.

RESULTS:

In 75 cases digestive perforation occurred in the fourth decade of life, and then in the fifth and third decade. This thirty-year life accounts for 66.66% of all patients. No patients were found in the first decade. Four patients (5.33%) were admitted to the hospital in the second decade of life. Ten patients (13.33%) were over 60 years old. The youngest patient was 15 years old and the oldest was 86 years old. Therefore, we came to the conclusion that the critical age of perforation is 4, 5 and 3 years old. Smoking was the most common predisposing factor 37 (49.33%). 28 patients had alcohol history, and 19 patients had a history of NSAIDs and steroids. In addition to these similar precursors, this has happened in 22 patients in the past. The maximum frequency of peptic perforation was observed in the blood group O + 47.36%, followed by B +, A + and AB +. Abdominal pain was the most common symptom during the presentation and occurred in all 75 patients. The next most often vomiting was followed by flatulence, hematomas and malena, occurring in 45, 35, 3 and 1 patients, respectively. The most common statement in the presentation was tenderness in 74 of 75 patients, followed by rigidity, guarding and distension in 80%, 68% and 44%.

On examination fluid thrill was present in 26 cases (34.66%) and liver dullness was obliterated in 65 cases (86.66%). In 35 cases there was no bowel sound (46.66%). Gas was detected under the diaphragm on X-ray in 63 cases (84%). Ultrasound was performed in 52 out of 75 cases. All of these patients have historically abused NSAIDs and steroids. Non-surgical treatment was preferred in 75 cases. 60% (80%) of the total was cured by non-

surgical treatment. Surgical intervention was performed in six cases (8%) and was considered a failure of conservative treatment, complication occurred in 4 patients (5.33%) and the mortality rate was 9.33%. Mortality was proportional to advanced age, and data indicate that 30% of patients who died were over 60 years old. The mortality rate showed that women's mortality is 1.33 times higher than that of men. Two patients showed signs and symptoms suggestive of septic shock, of which one died. 42.66% of patients were hospitalized for 6 to 10 days, and 41.33% were conservatively treated for 0 to 5 days in hospital. Most patients (84%) had less than 10 days of conservative treatment. The mean duration of conservative treatment was 7.06 days. While 41.33% of patients were hospitalized for 6-10 days, 36% of patients remained less than 6 days. The average length of stay was 7.50 days.

DISCUSSION:

Peptic perforation is one of the complications of peptic ulcer disease, which affects about 2% of patients with peptic ulcer disease. Udwardia reported the highest cases of digestive perforation in the 20-30 age group, which was almost under ten years reported in Western literature. Budhraj et al. It was reported that the majority of patients belonged to the 20-50 age group with an average age of 35 years. In our study, the maximum number of cases detected in the 4th decade of life, and then in the 5th and 3rd decade together constitute 66.66% of all patients. These findings can be compared with previous findings. Our youngest patient was a 15-year-old, 86-year-old woman. Bhansali reported 48 digestive perforations, of which only one reported a ratio of women and 47 men: 47: 1 men to women. Budhraj et al. On the other hand, Christainjen, Anderson, Bonnesen and Backgaard reported 23 men and 27 women to subsequent patients admitted to Copenhagen. Our study included 75 cases of digestive perforation, 60 men and 15 women, men: women, 4: 1 ratio in the study by Delis et al. 3: 1 male-female ratio (96 male, 32 female, 128 patients). Udwardia et al. It was reported that 40% of patients with digestive perforation had a history of peptic ulcer disease. Bhansali reported that a similar attack history occurs only in 40% of patients with perforated peptic ulcer. Budhraj reported that 17 of 17 cases with 42 digestive perforations had a history of peptic ulcer disease. In our study, 22 of 75 patients (29.33%) had a history of peptic ulcer disease similar to previous observations.

There may often be sudden severe epigastric pain followed by varying degrees of shock and mild

vomiting. During physical examination, an abdominal-like plaque appears, the most obvious tenderness in the right and middle epigastrium is normal clinical appearance. Clifford et al reported that the most common form of persistent pain in the middle of the abdomen is the most common presentation, and abdominal stiffness is the most surprising physical discovery. In our study, the clinical features are similar to those of previous studies. T.J Crofts, M.S Kenneth studied conservative treatment of digestive perforation, and in his study mortality was about 5%, and morbidity - 50%. In 1946, Herma Taylor reported a series of

28-well conservative ulcer patients with 4 deaths (1 can be prevented and 3 not treated), resulting in 20% mortality after a straight stitch and patch. Taylor's mortality was 11% according to conservative management in 1951. In 1956, 200 cases were collected, and in 1957, 1,102 patients from 18 conservative treatment centers were reported, with a total mortality rate of 5%. In 1950, it was assumed that mortality from perforated ulcers should be 5%. TABLE 1 shows a comparison and observation of several authors in the field of conservative treatment of digestive perforation.

Table 1: Results obtained by various authors by conservative management of peptic perforation.

| Authors | Year | Cases | Mortality | Mortality (%) |
|-----------------------------|------|-------|-----------|---------------|
| Herman Taylor[16] | 1951 | 73 | 7 | 9.58% |
| P.K.Sen and S.D. Deodhar[9] | 1958 | 139 | 7 | 5.03% |
| Blackford [18] | 1942 | 28 | 3 | 10.71% |
| Sen and Karanjawala | 1955 | 9 | 0 | 0% |
| Present Study | 2015 | 75 | 7 | 9.33% |

In our study, the mortality rate was 9.33% (7 cases). Three of the 7 cases were over 60 years old and it was significant mortality. 7 were 3 men and 4 women. The results of our study are in collaboration with the Blackford and Taylor studies. Thomas conservatively treated 35 patients with digestive perforation, intra-abdominal abscess in one patient, hepatic abscess in one patient, lower diaphragmatic abscess in one patient, and perineal tissue accumulation in one patient. These complications are caused by late admission, poor antibiotic response and patient incompatibility. Surgical intervention was used in 6 (8%) patients who were accepted as failure of conservative treatment. Surgical intervention was performed due to symptoms of general peritonitis that were not alleviated by pulse rate, fever and conservative treatment.

CONCLUSION:

As a result, perforation mainly affects the third, fourth and fifth year of life. Perforation is much more common in men than in women with a 4: 1 ratio. Smoking is the most common predisposing factor in 49.33% of cases, followed by alcohol, NSAIDs and steroids. O + blood group in these patients. Abdominal pain is the most common symptom and tenderness is the most common symptom that affects 100% and 98.66% respectively. Gas under the diaphragm was present in 84% of cases and in the most important diagnostic procedure. The mortality rate for conservative treatment of perforated peptic ulcer was 9.33%. Surgical intervention was performed only in 8% of all patients considered ineffective. Therefore, we came to the conclusion that non-surgical treatment of perforated ulcer disease may be a good and promising option for high-risk patients and patients with dry or high-risk perforation.

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