



A CLINICAL STUDY AND OUTCOME OF PERFORATIVE PERITONITIS IN A RURAL BASED TEACHING HOSPITAL

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ABSTRACT

BACKGROUND: Peritonitis due to perforation of gastro intestinal tract one of the commonest surgical emergencies all over the world and the most common surgical emergency in India. **AIMS AND OBJECTIVES:** to evaluate role of clinical assessment and usefulness of basic investigations in diagnosis and follow-up, to evaluate incidence of wound infection, wound dehiscence in post-operative period, to assess mortality upto 1 month of post-operative period. **METHODS:** All consenting patients above 18 years treated with symptoms and signs of perforative peritonitis in Burdwan Medical College and Hospital from March 2018 to August 2019 were included in this institution based, interventional, prospective, non-randomised, analytical study. **RESULTS:** We found that 40(80.0%) patients had gas under diaphragm in Chest X-ray report. It was found that 9(18.0%) patients had acute appendicitis, 1(2.0%) patient had appendicular perforation and 40(80.0%) patients had perforative peritonitis. We found that 30(60.0%) patients had chest infection. 10(20.0%) patients had wound infection. 6 (12.0%) patients had wound dehiscence. **CONCLUSION:** Early recognition of symptoms and referral is very important in reducing mortality and morbidity.

KEYWORDS : Perforative Peritonitis, Laparotomy, Wound Dehiscence

INTRODUCTION

Peritonitis is defined as the inflammation of the peritoneal cavity. Peritonitis due to perforation of gastro intestinal tract one of the commonest surgical emergencies all over the world and the most common surgical emergency in India.¹ Easy availability of powerful NSAIDs often causes upper GIT ulceration & its complications.² The other common causes of gastro intestinal(G. I) perforation are acid peptic disorder, appendicular perforation, intestinal tuberculosis, perforation due to foreign body, typhoid & trauma.³ In tropical countries like India, most commonly affecting young men in the prime of life.

The signs and symptoms are typical and it is possible to make a clinical diagnosis of peritonitis in all patients with support of baseline investigations.⁴ Perforation usually presents as acute abdomen. Local findings include abdominal tenderness, guarding or rigidity, distention of abdomen, diminished bowel sounds.⁵ Systemic findings are fever, chill, rigor, tachypnoea, tachycardia, restlessness, dehydration, oliguria, disorientation and ultimately shock. Diagnosis is usually made clinically and confirmed by the presence of pneumoperitoneum on radiographs.

Patients of perforative peritonitis are managed with intravenous (I.V) fluids, electrolyte replacements, I.V antibiotics, blood transfusion (whenever needed). Emergency laparotomy is performed either to repair or resect and anastomose the perforated segments or exteriorize excluding pathological site.

METHODOLOGY

Aims and objectives

1. To evaluate role of clinical assessment and usefulness of basic investigations in diagnosis and follow-up in a tertiary care set-up in this area.
2. To evaluate incidence of wound infection, wound dehiscence in post-operative period upto day 14.
3. To assess mortality upto 1 month of post-operative period in patients' of perforative peritonitis.

All consenting patients above 18 years treated with symptoms and signs of perforative peritonitis in Burdwan Medical College and Hospital from March 2018 to August 2019 were included in the study. This is institution based, interventional, prospective, non-randomised, analytical study.

The patients were assessed clinically. Report of radiological investigations including x-ray (chest and abdomen), ultrasonography (whole abdomen) or CT scan (whole abdomen) whichever available and confirming the diagnosis of perforative peritonitis will be recorded. Post-operative rise of temperature, pulse, respiration, blood pressure, urine output, hydration status etc will be recorded as per institutional protocol.

For statistical analysis data were entered into a Microsoft excel spreadsheet and then analysed by SPSS (version 25.0; SPSS Inc., Chicago, IL, USA) and Graph Pad Prism version 5.

RESULTS AND DISCUSSION

We found that 2(4.0%) patients had ≤ 20 years of age, 13(26.0%) patients had 21 to 30 years of age, 19(38.0%) patients had 31 to 40 years of age, 10(20.0%) patients had 41 to 50 years of age, 5(10.0%) patients had 51 to 60 years of age and 1(2.0%) patient had 61 to 70 years of age. 10 (20.0%) patients had female and 40(80.0%) patients had male. Association of age vs. outcome was not statistically significant ($p=0.0898$).

In cured, 9(21.4%) patients had female and 33(78.6%) patients had male. In dead, 1(12.5%) patients had female and 7(87.5%) patients had male. Association of sex vs. outcome was not statistically significant ($p=0.9231715372$).

It was found that 1(2.0) patients had car driver, 1(2.0%) patients had car mechanic, 6(12.0%) patients had daily labour, 13(26.0%) patients had farmer, 1(2.0%) patients had fishermen, 1(2.0%) patients had govt. servant, 2(4.0%) patients had housemaid, 7(14.0%) patients had housewife,

2(4.0%) patients had rickshaw puller, 9(18.0%) patients had shopkeeper, 4(8.0%) patients had student and 3(6.0%) patients had driver.

We found that 40(80.0%) patients had gas under diaphragm in Chest X-ray report. 48 (96.0%) patients had interloop collection of gut, 1(2.0%) patient had mild interloop collection of gut and 1(2.0%) patient had peritoneal collection.

It was found that 9(18.0%) patients had acute appendicitis, 1(2.0%) patient had appendicular perforation and 40(80.0%) patients had perforative peritonitis. We found that 10(20.0%) patients had appendicular perforation, 30(60.0%) patients had D1 perforation, 3(6.0%) patients had Ileal perforation and 7(14.0%) patients had Jejunal perforation.

We found that 30(60.0%) patients had chest infection. 10(20.0%) patients had wound infection. 6 (12.0%) patients had wound dehiscence.

It was found that 42(84.0%) patients had cured and 8(16.0%) patients had dead. We found that association of occupation vs. outcome was not statistically significant ($p=0.5037$).

We found that in cured, 33(78.6%) patients had gas under diaphragm. In dead, 7(87.5%) patients had gas under diaphragm. Association of gas under diaphragm vs. outcome was not statistically significant ($p=0.9231715372$).

It was found that in cured, 40(95.2%) patients had interloop collection of gut, 1(2.4%) patient had mild interloop collection of gut and 1(2.4%) patient had peritoneal collection. In dead, 8(100.0%) patients had interloop collection of gut. Association of USG vs. outcome was not statistically significant ($p=0.8200$).

We found that in cured, 33(78.6%) patients had Perforative peritonitis. In dead, 7(87.5%) patients had Perforative peritonitis. Association of P/D vs. outcome was not statistically significant ($p=0.8116$). Association of final diagnosis vs. outcome was not statistically significant ($p=0.6431$).

It was found that in cured, 22(52.4%) patients had chest infection. In dead, 8(100.0%) patients had chest infection. Association of chest infection vs. outcome was statistically significant ($p=0.01174$). It was found that in cured, 3(7.1%) patients had wound infection. In dead, 7(87.5%) patients had wound infection. Association of wound infection vs. outcome was statistically significant ($p<0.001$).

We found that in cured, 42(100.0%) patients had wound dehiscence nil. In dead, 6(75.0%) patients had wound dehiscence. Association of wound dehiscence vs. outcome was statistically significant ($p<0.001$).

We found that in cured, the mean age (mean \pm s.d.) of patients was 35.2143 ± 9.8390 years. In dead, the mean age (mean \pm s.d.) of patients was 43.3750 ± 14.7352 years. Distribution of mean age vs. outcome was not statistically significant ($p=0.0537$). It was found that in cured, the mean time of presentation at hospital after onset of symptom (mean \pm s.d.) of patients was 14.0000 ± 9.1358 . In dead, the mean time of presentation at hospital after onset of symptom (mean \pm s.d.) of patients was 38.5000 ± 19.8206 . Distribution of mean time of presentation at hospital after onset of symptom vs. outcome was statistically significant ($p<0.0001$).

We found that in cured, the mean laparotomy done after admission (mean \pm s.d.) of patients was 4.0952 ± 1.4451 . In dead, the mean laparotomy done after admission (mean \pm s.d.) of patients was 4.3750 ± 1.5059 . Distribution of mean laparotomy done after admission vs. outcome was not

statistically significant ($p=0.6202$).

CONCLUSION

We found that most common age group was 31 to 40 years and male was predominant than female.

It was found that 40(80.0%) patients had perforative peritonitis and 30(60.0%) patients had D1 perforation.

We found that 30(60.0%) patients had chest infection, 10(20.0%) patients had wound infection and 6(12.0%) patients had wound dehiscence. The mortality was 8(16.0%) patients.

It was found that in dead, 8(100.0%) patients had chest infection which was statistically significant. Wound infection and wound dehiscence was significantly associated with poor outcome.

We found that in mean time of presentation at hospital after onset of symptom was statistically significant with poor outcome.

Late presentation of peptic ulcer perforation is common with high morbidity and mortality. Early recognition of symptoms and referral is very important in reducing mortality and morbidity.

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