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Research Article

**OUTCOME OF PATIENTS AFTER RE-LAPAROTOMY ON
DEMAND IN SECONDARY PERITONITIS AND ITS
MORTALITY AND MORBIDITY**¹Dr. Afifa Munir Ahmed, ¹Dr. Izza Attique, ²Dr. Nazish Sarfraz¹Lahore General Hospital, Lahore²Sargodha Medical College, Sargodha**Abstract:**

Objective: To assess the outcome of patients with secondary peritonitis in terms of mortality and morbidity after Re-laparotomy on demand.

Study design: A descriptive study.

Location and duration of work: In the Surgery Department, Lahore General Hospital, Lahore from December 2016 to December 2017.

Findings: A total of 30 patients with a male to female ratio of 1: 1.3 were selected for the study. The patients mean age was 31.47. Intra-abdominal abscess was the most important and frequently indication for Re-Laparotomy in 63%. The most common complication was infection of the wound by 90%. The time interval between adverse effect variables, index surgery, laparotomy and APACHE II score = 15 was more than a week, with sepsis, multiple organ dysfunction and multiple laparotomies present. Approximately 41% is the mortality rate.

Conclusion: For removing recurrent or persistent infection Re-laparotomy is a beneficial method to reduce mortality and morbidity if performed correctly, and the decision is made after close and careful supervision.

Key words: Morbidity, Re-Laparotomy, APACHE II

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INTRODUCTION:

Peritonitis is an urgent situation the surgeons face. Secondary peritonitis is caused by loss of visceral integrity due to postoperative complications, infection and ischemic necrosis from peritonitis or trauma. Surgical or per-cutaneous control of drainage of resources is the basis of treatment. In the case of stubborn intra-abdominal sepsis, treatment strategies include laparostomy (leaving the abdomen open) or further laparotomies on need. Re-laparotomy is defined as re-exploration after the first laparotomy performed when the patient's clinical condition deteriorates. The Re-laparotomy has recently been observed with advances in imaging techniques that can be used by patients who can benefit from laparotomy. There is a constant debate about the application of different treatment strategies, but to improve the overall effective treatment outcome, measures should be taken when high mortality rates due to continuous sepsis are considered in patients with secondary peritonitis. The purpose of this study is to evaluate the role of Re laparotomy in the control of intra-abdominal infection and to know the results in terms of mortality and morbidity.

MATERIALS AND METHODS:

This descriptive study was conducted in the Surgery Department, Lahore General Hospital from December 2016 to December 2017. The study included both sexes older than 14 years of age and

patients who had undergone laparotomy on new demand; the planned re-discovery is out. Upon request, the new laparotomy was defined as immediate re-discovery only when the patient's clinical condition deteriorates or does not evolve, or when the intra-abdominal collection is sonic or CT evidence.

All patients who were urgent, presenting or entering the room and meeting the criteria for inclusion were included in the OPD and OPD. The evaluation was carried out by detailed dates, examinations and investigations. In SPSS version 10 Statistical analysis was done.

RESULTS:

30 patients who underwent laparotomy were selected for the study. 17 were women, 13 were men.

The ratio of women with 1: 1.3. The patients mean age was 31.47 ± 13.21 . Sixteen patients underwent the first operation electively and 14 had an emergency situation. 20 patients had initial surgery for gastrointestinal pathology, 02 had pancreatic disease and 04 had hepatobiliary disease,.

In 19 patients, the most important and common manifestation for laparotomy was Abdominal Abscess, In 14 patients sepsis is the cause. Anastomoses leakage in 9 patients, 8 enterocutaneous fistulas and in 2 patients because of hemorrhage.

Table I: Indications of Re-laparotomy on demand

| S No | Indications | No | Percentage | 95% C.I* | p Value |
|------|-------------------------|----|------------|-----------|---------|
| 1 | Intra abdominal abscess | 19 | 63 | 45.2-78.9 | 0.144 |
| 2 | Anastomotic leak | 09 | 30 | 13.2-44.4 | 0.28 |
| 3 | Enterocutaneous fistula | 08 | 26.6 | 15.7-47.9 | 0.11 |
| 4 | Perforation | 02 | 6.6 | 1.1-20.3 | 0.001 |
| 5 | Hemorrhage | 02 | 6.6 | 1.1-20.3 | 0.715 |
| 6 | Sepsis | 14 | 46.6 | 29.5-64.4 | 0.001 |

*C.I= confidence interval, Chi square value=15.885 P value= 0.003

There was a clear overlap between the complications that required Re-laparotomy. Thirty-five patients had laparotomy again in '05. The mean time between laparotomy and index surgery was 7.53 days (range 1 to 18 days). Morbidity, APACHE II score, duration of stay in the hospital and duration of ICU stay were assessed and evaluated for mechanical ventilation and postoperative complications. If the clinical progression was determined by a score of APACHE II score of 13 (mean 6-20), the mean APACHE II score of 9 (range 0-20) was calculated. While 20 patients used APACHE II = 15 09, the mean duration of hospitalization (between 3 and 63 days) was 30.73 days > 15points.

| S No | Complications | No | Percentage | 95% C.I* | p Value |
|------|----------------------------------|----|------------|------------|---------|
| 1 | Wound infection | 27 | 90 | 75.1-97.3 | <0.01 |
| 2 | Recurrent collection | 08 | 26.6 | 13.2-44.4 | 0.11 |
| 3 | Enterocutaneous fistula | 08 | 26.6 | 13.2-44.4 | 0.01 |
| 4 | Sepsis | 07 | 23.3 | 10.8-40.7 | 0.003 |
| 5 | Multi organ dysfunction syndrome | 07 | 23.3 | 10.8-40.7 | 0.003 |
| 6 | Hemorrhage | 03 | 10 | 2.6 – 24.8 | 0.001 |
| 7 | Anastomotic leak | 02 | 6.6 | 1.1- 20.3 | <0.01 |

Twenty patients in ICU remained in the intensive care unit for an average of 2.90 days (0-15 days). Mechanical ventilation needed in 8 patients. Complications that occur in patients are shown in Table II. 12 patients died during the study with 40% mortality rate.

DICSUSSION:

Previous studies have shown mortality of 50-80% after a new laparotomy. The main focus factors in the treatment of peritonitis, alone or in combination, may affect the outcome of the disease. The literature indicates that older age is an important prognostic factor. Koperna and Schulz found that the most frequent occurrence in patients older than 70 years had a significant impact on survival, with a mortality rate of 67.3% in 35.8% of younger age groups. In our study, this important prognostic effect was not found. Overall mortality was 58.6% at 35 years and 41% at 35-55 years, the lowest among the lowest age groups. He described several systems in critical patients to assess the severity of the disease. APACHE II scores are more widely accepted. Physiological disorders measured by APACHE II predict the outcome of patients with secondary peritonitis. In one study, higher mortality was reported with a higher APACHE II score. APACHE II was <5% below 15 and 47% with APACHE II. The preoperative prevalence of Apache II was 15% in patients with APACHE II, 15% and 66.6% in patients with APACHE II > 15. One of the most important factors in mortality after laparotomy is the new discovery. In another study, the most common indication for laparotomy was bleeding (18.51%) and perforation (9.87%) followed by anastomosis (41.97%). 11 Our patients had multiple complications resulting in a new scan, but most of the time laparotomy was performed with intra-abdominal abscess and persistent sepsis (63%). This peritonitis source has been a prognostic factor, as it has been found that the etiologic nature of pollutants of death is likely to be higher among patients for gastrointestinal surgery. A new GI pathology applied to 20 patients resulted in

nine patients, with a total mortality rate of nine patients of 45%. Another terminal effect after the laparotomies is the time interval between the first operation and the new laparotomy. In one study, a new discovery made 48 hours after the first operation resulted in a higher death rate (77%) compared to those constructed within 48 hours. The same mortality rate was the same in our patients, because 25% in 48 hours and 41% in patients who underwent surgery in one week. In previous reports, the odds ratio after single versus multiple re-laparotomies was only 30.6% and 65.6%, respectively. 14% in our study and only laparotomy was new laparotomy 80% mortality after the procedure. The septic wart continues to be an interesting problem in general surgery, and there is still no consensus on how to approach it. valuable information can not be generalized to the results obtained after laparotomy and the effect of initial condition of mortality and morbidity and propensity to referral, since small sample is obtained after laparotomy in our study. The APACHE II score is used as a marker of outcome, but it is not independent of treatment effect and may lead to a significant prejudice in the evaluation of treatment policies. For this reason, it is still necessary to conduct large multicentre studies to compare the various control methods of postoperative sepsis and to assess the gold standard of treatment.

CONCLUSION:

The Re-laparotomy is effective and is useful before a serious physiological disorder occur and multi-organ failure or infection is noted. It is useful when an acceptable safety margin method is performed.

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