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A CROSS-SECTIONAL RESEARCH TO COMPARE THE VARIOUS POSTOPERATIVE COMPLEXITIES OCCURRENCE IN SECONDARY ADVANCED PERITONITIS AFTER ILEOSTOMY

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Abstract:

Background: *Since ancient times, depletion of body cavities has been used in medicine. For many years, there has been a dispute related to the use of peritoneal drainage in patients with diffuse peritonitis.*

Objective: *To compare the occurrence of different postoperative complexities in secondary advanced peritonitis after ileostomy because of enteric excavate with or without drains, was the objective of this study.*

Patients and Methods: *This research was carried out at Mayo Hospital, Lahore from February 2017 to October 2017. The patients selected for the study were having peritonitis for above 48 hours. In all the participants, ileostomy was carried out. All patients were divided into two categories. Group – A include patients with transperitoneal drainage. Whereas, Group – B contains patients without drainage. Those patients were excluded from this study who were found with primary repair.*

Results: *Total patients included in this study were 50. The percentage of males and females was 56% and 44% respectively with a male to female ratio of (1.27:1). The mean age of patients was (24.75 ± 10) years. All these patients were having secondary peritonitis due to typhoid excavation (with a history of systemic toxicity). These patients need ileostomy with or without gut resection. For group A, mean postoperative hospital stay was (9.5 ± 0.5) while for group B it was (6.5 ± 0.51) was mean hospital stay. Drainage was carried out in 24 patients; whereas, 26 patients were without drainage (Group A & B). Comparative to three patients of Group – B wound infection was developed by five patients of Group – A. Comparative to Group – B, patients of Group – A who got burst abdomen, intra-abdominal collection and chest infection were one, two and one respectively.*

Conclusion: *In patients in whom drain was inserted, the incidence of complexities such as intraabdominal collection, pulmonary infections and burst abdomen was high. Still there observed no advantage of drainage of peritoneal cavity in secondary advanced peritonitis.*

Keywords: *Resection, Drainage, Postoperative, Ileostomy, Burst Abdomen, Infection and Peritoneal.*

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INTRODUCTION:

The most critical complexity associated with typhoid fever is an enteric perforation. 8% to 57% is the range of death rate [1, 2]. The occurrence of complexities after the operation is high. Wound dehiscence wound infection, intraabdominal abscess and faecal fistula are some of the complexities. 67% is the rate of morbidity. It increases with drains [3 – 5]. Suitable antibiotic along with the timely decision of primary repair, resection or exteriorization of excavation and suitable fluid and colloid replacement to correct losses have led the important enhancements in the treatment of typhoid perforation. It was an affirmed fact that drains quickly become walled off and become unserious. Still, for countries, prophylactic drainage of the peritoneal cavity after abdominal surgery has been used on a large scale [6 – 8]. To compare the occurrence of different postoperative complexities in secondary advanced peritonitis after ileostomy because of enteric excavate with or without drains, was the objective of this study.

PATIENTS AND METHODS:

This research was carried out at Mayo Hospital, Lahore from February 2017 to October 2017. The patients selected for the study were having peritonitis for above 48 hours. In all the participants, ileostomy was carried out. All patients were divided into two categories. Group – A include patients with transperitoneal drainage. Whereas, Group – B contains patients without drainage. Those patients were excluded from this study who were found with primary repair, primary closure, chronic renal failure, hypertension, comorbid disorders, chronic obstructive pulmonary disorder, diabetes mellitus and chronic liver disorder. The selected patients were divided into two groups A and B. Midline incision was used for operating patients. Based on the place and number of excavations, ileostomy was performed. Except in Group – A, where transperitoneal drainage was carried out, treatment in all these patients (such as antibiotic cover, electrolyte and fluid replacement) was similar. Peritoneal lavage with ten-litre normal saline was carried out in all patients. Nelaton drain 30/28F was inserted in a pelvic cavity in patients of Group – A (patients with transperitoneal drainage). By tension suture employing polypropylene 1, the closure was done. Information was assembled related to superficial skin site waned infection, intraabdominal collection, postoperative morbidity, postoperative fever, the time period of hospital stays, deep wound infection and other complexities of ileostomy. SPSS was used for data collection and analysis.

RESULTS:

Total patients included in this study were 50. The percentage of males and females was 56% and 44% respectively with a male to female ratio of (1.27:1). The mean age of patients was (24.75 ± 10) years. All these patients were having secondary peritonitis due to typhoid excavation (with a history of systemic toxicity). These patients need ileostomy with or without gut resection. For group A, mean postoperative hospital stay was (9.5 ± 0.5) while for group B it was (6.5 ± 0.51) was mean hospital stay. Drainage was carried out in 24 patients; whereas, 26 patients were without drainage (Group A & B). Comparative to three patients of Group – B wound infection was developed by five patients of Group – A. Comparative to Group – B, patients of Group – A who got burst abdomen, intra-abdominal collection and chest infection were one, two and one respectively. Detailed surgical outcomes and complexities are as under:

Table – I: Surgical Outcomes

Surgical Outcomes	Drain Group		No Drain		P-Value
	Mean	±SD	Mean	±SD	
Start of Ileostomy Function (POD)	3.67	0.57	3.52	0.95	> 0.05
Initiation of Soft Diet (POD)	4.87	0.72	4.82	0.84	> 0.05
Hospital Stay (POD)	9.5	0.5	6.5	0.51	< 0.05

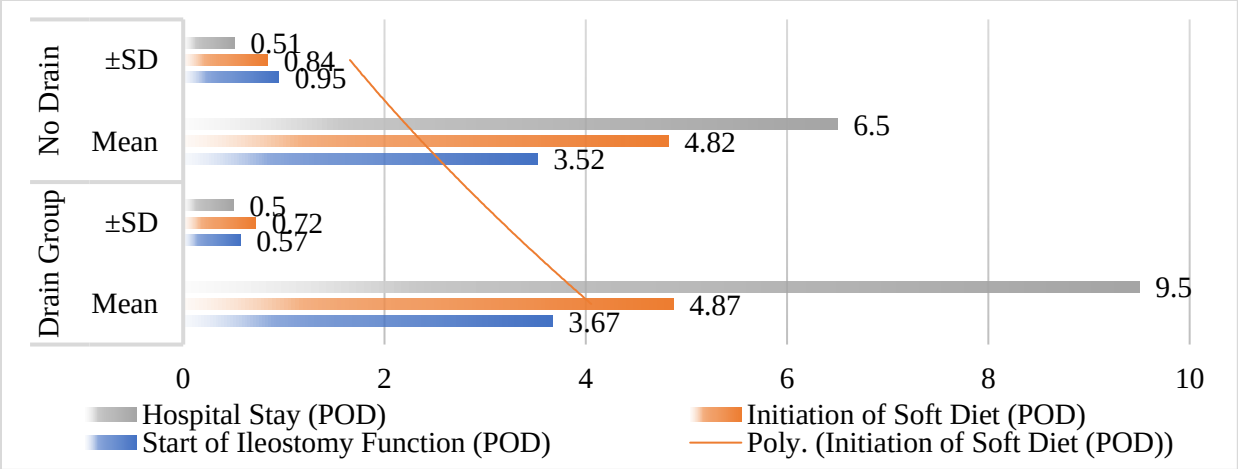
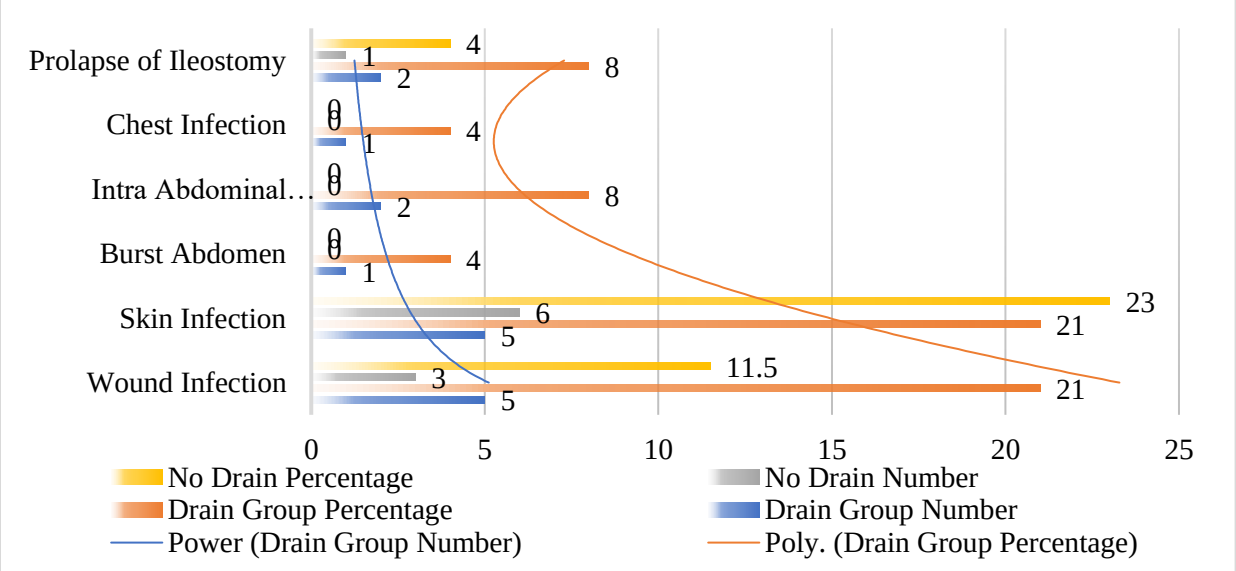


Table – II: Associated Complications

Complications	Drain Group		No Drain		P-Value
	Number	Percentage	Number	Percentage	
Wound Infection	5	21	3	11.5	> 0.25
Skin Infection	5	21	6	23	> 0.5
Burst Abdomen	1	4	0	0	> 0.25
Intra-Abdominal Collection	2	8	0	0	> 0.25
Chest Infection	1	4	0	0	> 0.25
Prolapse of Ileostomy	2	8	1	4	> 0.5
Mean Surgical Duration (Mean ± SD)	85	5	84.5	5	> 0.5



DISCUSSION:

A long historical, clinical and experimental review was assembled by Yates [9] in 1905. This review clearly declared that drainage of the peritoneal cavity was physically and physiologically not possible, there was, aside from balance; and peritoneal drainage must be local. In mature people with common peritonitis, drains are prevented by most of the surgeons [10]. T. Alex Haller [11] and Moshe Schein [12] conducted studies. They described that to drain the whole peritoneal cavity is not possible physically and it is fatal to insert the drain in these conditions. Peritoneal drains may also serve as a nidus for infection according to viewpoint of few surgeons [13]. Pai D et al. and Henrik Petrowsky in their studies described that in avoiding postoperative fluid collection the use of drains is not productive. The occurrence of intrabdominal collections is also not reduced by use of drains [14, 15]. According to current reports, it is considered that without drainage, many abdominal surgical techniques can be carried out [16 – 19]. A study was conducted on 50 patients of advanced peritonitis. The ileostomy was carried out in these patients [20]. The results of this study analyze that transperitoneal drainage was done for 26 patients and 24 were without drainage. No advantages from transperitoneal drainage were shown by patients. More extra-abdominal and abdominal complexities were observed in patients with transperitoneal drainage. These complexities include intraabdominal collections, reoperation due to burst abdomen, chest infections observed in 4%, 2% and 2% patients respectively. These are comparable with other identical studies [21]. Similar to other studies, no valuable dissimilarity in the initiation of ileostomy working and start of soft diet between both groups in our study was found [22]. But the duration of hospital stay was decreased remarkably (<0.05). The longer stay was observed in patients with drains. Moreover, there exists danger in abdominal drains as well. Increased rates of intraabdominal, enhanced abdominal pain, bowel injury, wound infection, reduced pulmonary function and long duration of hospital stay are the complications associated with abdominal drains [23 – 25]. The complexities associated with a drain like drain site infection, increased discomfort, fistula after surgery are illustrated in the information [26].

CONCLUSION:

The results concluded slight usefulness of drainage of the peritoneal cavity in secondary advanced peritonitis. In patients in whom drain was inserted, the incidence of complexities such as intraabdominal collection, pulmonary infections and burst abdomen was high. In generalized peritonitis, good peritoneal lavage at the time of surgery should be given importance.

REFERENCES:

1. Kim J, Lee J, Hyung WJ, Cheong JH, Chen J, Choi SH, Noh SH. Gastric Cancer Surgery without drains: a prospective randomized trial. J Gastrointest Surg 2004; 8: 727-732.
2. Merad F, Hay JM, Fingerhut A, et al. Is prophylactic pelvic drainage useful after elective rectal or anal anastomosis? A multicenter controlled randomized trial. French Association for Surgical Research. Surgery. 1999; 125:529-535.
3. Andersson R, Saarela A, Tranberg KG, et al. Intraabdominal abscess formation after major liver resection. Acta Chir Scand. 1990; 156:707710.
4. Pai D, Sharma A, Kanungo R, et al. Role of abdominal drains in perforated duodenal ulcer patients: a prospective controlled study. Aust NZ J Surg. 1999; 69:210213.
5. Nakajima T. Gastric cancer treatment guidelines in Japan. Gastric cancer 2002; 5:1-5.
6. Fong Y, Brennan MF, Brown K, Heffernan N, Blumgart LH. Drainage is unnecessary after elective liver resection, Am J surge 1996; 171:158-162.
7. Schein M, Marshall J. Source Control for Surgical Infection, World J. Surg 2004;28:638-645.
8. Condon RE: Chapter I. Textbook of Surgery. W. B. Saunders Co. Philadelphia, 1972.
9. Pai D, et al. Role of abdominal drains in perforated duodenal ulcer patients: a prospective controlled. Study. Aust N Z J Surg. 1999;69(3):210-3.
10. Petrowsky H et al. Evidence-based Value of Prophylactic Drainage in Gastrointestinal Surgery. Ann Surg. 2004; 240(6): 1074-1085.
11. Smith SR, Gilmore OJ. Surgical drainage. Br J Hosp Med. 1985; 33:308- 311.
12. Conlon KC, Labow D, Leung D, et al. Prospective drainage after pancreatic resection. Ann Surg. 2001; 234:487-493.
13. Jeekel J. No abdominal drainage after Whipple's procedure. Br J Surg. 1992; 79:182.
14. Merad F, Hay JM, Fingerhut A, et al. Is prophylactic pelvic drainage useful after elective rectal or anal anastomosis. A multicenter controlled randomized trial. French Association for Surgical Research. Surgery. 1999; 125:529-535.

15. Idrees MA, et al. Enteric perforation of bowel-A selective management. RMJ 1998; 25:1-3.
16. Gurusamy KS, Samraj K Routine abdominal drainage for uncomplicated open cholecystectomy. Cochrane Database Syst Rev. 2007 Apr 18 ;(2)
17. Moc CN, Amaral J, Visser LE. Improvement in Survival from typhoid ileal perforation, Result of 221 operative cases. Ann-Surg 1992; 5(3): 244-9.
18. Akoh-JA. Prognostic factors in Typhoid perforation; East Afr.-Med-J.1993; 70(1): 18-21.
19. Khan MA et al. Enteric Perforation, Role of Ileostomy in Typhoid perforation. J Surg 1996; 11: 31-33.
20. S. Abdullah Iqbal et al. Typhoid perforation of the bowel. ACTA MEDICA. 1994;1(3): 44-46.
21. Chi-Leung Liu et al. Abdominal Drainage after Hepatic Resection Is Contraindicated in Patients with Chronic Liver Diseases. Ann Surg. 2004; 239(2): 194-201.
22. Vinnicombe J. Appendectomy Wound Infection, Drainage and Antibiotics. Br. J. Surg 1971; 51:328 Moss JP. Historical and current perspectives on surgical drainage. Surg Gynecol Obstet. 1981; 152:517-527.
23. Robinson JO. Surgical drainage: A historical perspective. Br J Surg. 1986; 73:422-26.
24. Yates JL. An Experimental Study of the Local Effects of Peritoneal Drainage. Surg. Gynecol. Obst 1905; 1:473.
25. Stone HH, Saunders SL, Martin JD. Perforated Appendicitis in Children. Surgery 1971; 669-673.
26. Alex HJ, et al; Peritoneal Drainage Versus Non-drainage for Generalized Peritonitis from Ruptured Appendicitis in Children: A Prospective Study. December 4-6,1972 Boca Raton, Florida.