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Original Research Paper

Surgery

BENEFITS AND LIMITATIONS OF DRAINS AFTER PEPTIC ULCER PERFORATION REPAIR –COMPARISON OF COMPLICATIONS IN THREE GROUPS AT A TERTIARY CARE HOSPITAL .

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ABSTRACT

Background: Peptic ulcer perforation is an emergency and requires urgent surgical intervention. Nowadays ,several modalities of treatment are available ranging from conservative treatment to laparoscopic repair of the perforation.

Aim: To compare the post-op complications following omental patch closure of perforated peptic ulcer in 3 groups of patients as follows: no drain group, one-drain subhepatic group, one-drain pelvic group.

Methods: This study was conducted in department of surgery on 90 patients presenting with peptic perforation in last three years. All the patients with pyloroduodenal perforation were included in the study.

Results: Out of 90 cases there were 80 male patients and 10 female patients . Post-operative complications were similar in the no-drain group as compared to other (drain) groups.

Conclusion: In summary, after the surgery for perforated peptic ulcer no drain placement is as good as one drain placement and sub-hepatic drain is more useful than the pelvic drain.

KEYWORDS : : pyloroduodenal perforation, Graham's patch, drains.

Introduction

"When in doubt, drain", well known to all surgical trainees [1]. However, in the modern era of advanced medicine, several well constructed prospective studies failed to show any benefit from prophylactic abdominal drainage after a variety of intraabdominal interventions such as colo-rectal resection [2], open / laparoscopic cholecystectomy [3], radical hysterectomy , retroperitoneal lymphadenectomy , Liver resection , Pancreatic resection or Gastrectomy .Dains inserted after any surgical procedure are not free of complications.

Conservative treatment has a limited role in the management of peptic ulcer perforation patient,although studies have shown role in some selected cases .Studies have suggested that if signs of peritonitis are present then exploratory laparotomy should be done without any unnecessary delay. This should be done within 12 hours(window period) to avoid poor outcome . Various surgical options are available and choice depends on duration of peritonitis, dimensions of perforation, past history of symptomatic peptic ulcer disease and co-morbid conditions.The surgical treatment is the method of choice but the changing trend is towards minimum invasive surgery due to effective antibiotics nowadays in big centers, Laparoscopic closure of perforated peptic ulcer is increasingly being performed. A definitive ulcer procedure can be performed if contamination of the upper abdomen is minimal and the patient is haemodynamically stable.The patients with duodenal perforation who present with unstable haemodynamics and gross peritoneal contamination the safest and classical surgery is simple closure with a Graham's patch using omentum ,after resuscitation..Most of the surgeons prefer to put a drain in such patients after the procedure intraoperatively but it has been seen and evidenced by recent literature that the use of drains does not provide any additional benefit in patient recovery , instead adds to the morbidity of the patient .

Methods: This study was conducted in the department of surgery in MMIMSR on 90 patients presenting with peptic perforation from December 2015 to November 2017 . All patients with duodenal perforation were included in the study. Patients with multiple perforations ,perforations as a result of trauma and severe associated comorbidity were excluded from the study. The patients were divided in three groups Group A comprised of patients in whom no drain was put ,group B comprised of patients in whom subhepatic drain was put and group C pelvic drain was inserted.Postoperative complications in terms of intraabdominal sepsis , fever,wound infection,burst abdomen ,late ambulation were compared and noted down. Patients were followed up for three months in OPD.

Results : Out of 90 cases there were 80 male patients and 10 female patients . Clinical profile of patients matched in the 3 groups various clinical parameters and postoperative complications in three groups of patients were compared.

TABLE NO.I

RISK FACTORS	NO. OF PATIENTS
Smoking	78
Intake of NSAIDS	44
Coffee and tea ingestion	44
Famil history of PUD	23
Total no. of patients	90

TABLE NO. I showing distribution of patients as per risk factors present

TABLE II

Post-operative complications three Groupsof patients group A ,group B and Group C .			
POSTOP COMPLICATIONS GROUPS			
COMPLICATION	A(NO DRAIN)(N=30)	B(SUBHEPATIC DRAIN)(N=30)	C(PELVIC DRAIN)(N=30)
Fever	5	4	5
Pain Abdomen	3	4	6
Wound Dehiscence	2	0	3
Collection	2	0	1

Wound infection	5	5	8
Chest Complications	3	7	4
Gastroduodenal Leak	0	0	2
Mortality	0	2	2

TABLE II. Post-operative complications three Groupsof patients group A ,group B and Group C

As seen in table II mostly the incidence of postoperative complications in three group of patients A , B and C were similar and the difference was almost non significant .out of 90 cases 4 patients died within 24 hours of surgery.

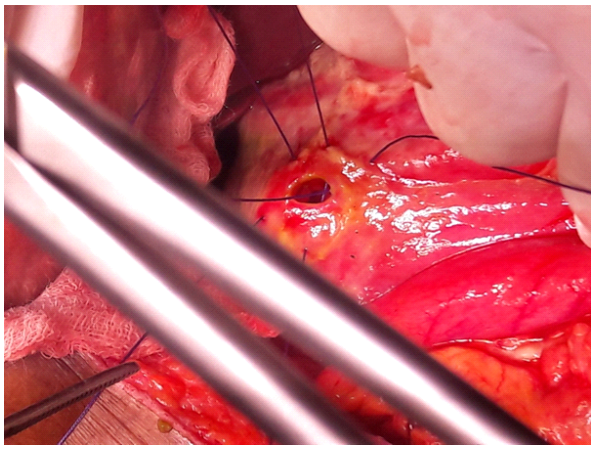

Figure I showing a small(1×0.5 cm) pyloroduodenal perforation

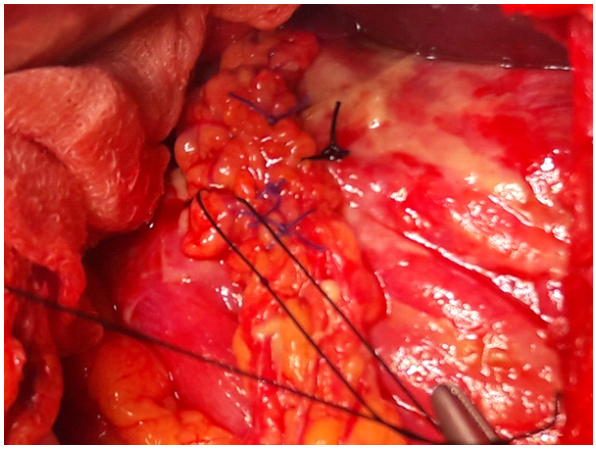

Figure II showing omental flap repair of perforation using absorbable sutures .

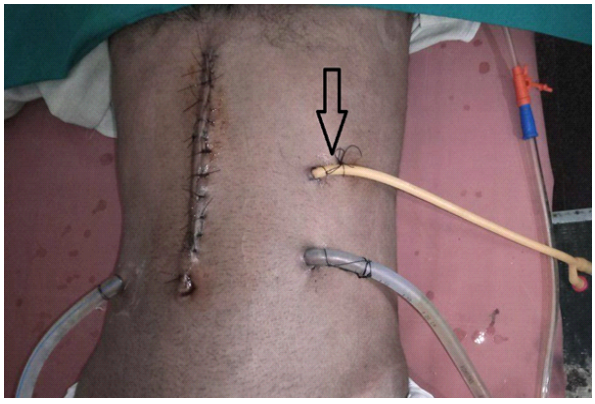

Figure III showing postoperative case of DU perforation having two drains right side in sebhepatic space and left sided in pelvis and Foleys catheter used for fj although such patients were excluded from our study .

DISCUSSION

Peptic ulcer perforation is one of the commonest surgical emergency in india. The overall reported mortality rate varies between 1.3 to nearly 20 % in different studies. Factors such as advancing age, concomitant disease, preoperative shock, large size of the perforation, delay in presentation as well as operation, have all been defined by various authors to be risk factors for mortality in such a situation [4].

In the present study , 90 patients who were diagnosed as having perforation peritonitis were included .the number of males were 80 and females 10 out of 100 patients which is comparable to the study carried out by Sanjay Gupta et al in which there were 148 males and 14 females out of total 162 patients .the commonest surgery performed was Grahms patch repair in present study .(5)

Pai D in 1999 SQ concluded that The routine use of drains was found to be ineffective in patients of perforated duodenal ulcer treated by omental patch closure(6) which is also observed in our study.Wound infection was also observed postoperatively which was managed by using normal saline or superoxidized solution (7)
Conclusion :- In conclusion , in perforated peptic ulcer postoperatively no drain placement is as good as single drain placement and sub-hepatic drain is more useful than the pelvic drain.

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