



INCIDENCE OF INCISIONAL HERNIA OVER DRAIN SITE

General Surgery

Dr Madhu Kumari 3rd year PG, MS general surgery, PMCH, Patna

Dr Prity Kumari 3rd year PG, MS general surgery, PMCH, Patna

Dr Ankur Prakash Senior Resident, MS general surgery, PMCH, Patna

ABSTRACT

Background:- The purpose of the study is to study about the incidence of drain site hernia and factors to take care of to avoid it. **Method :-** A total of 300 patients with incisional hernia were selected from different wards of general surgery, pmch, patna from September 2020 to September 2022 for this retrospective study fulfilling the inclusion and exclusion criteria. Among all 300 patients, 8 patients were came out as drain site incisional hernia. **Results:-** 2 patients after cholecystectomy and 6 patients after laparotomy developed drain site incisional hernia. All patients were of poor nutritional status. Defect size in each patient was of ≤ 1 cm. 7 patients had history of early return to job while 1 patient had history of wound infection. 7 patients came for OPD admission with minimal symptoms and 1 patient came to surgical emergency with strangulated drain site incisional hernia. **Conclusion:-** Although in our study drain site hernia constituted only 2.67 % of all incisional hernia, it cannot be completely overlooked particularly when it is avoidable. Although it cannot be completely avoidable but we can decrease the incidence by avoiding unnecessary drain, opting for a smaller size, keeping it for shorter duration, taking proper care of wound, gentle extraction and closing the wound after drain removal. Working properly on post operative nutritional status of patients and giving strict warning about early return to strenuous work.

KEYWORDS

INTRODUCTION

It is a customary to place drain after laparotomy in maximum centres so that any mishappening after surgery can be assessed early like post operative intraperitoneal bleeding or any content leakage after an anastomosis. The concept of placing abdominal kit drain inside peritoneal cavity arisen purely for patient benefit, for early addressing of any complain and interventions to patient's condition but sometimes it goes against patient for eg it may give access to microbes directly into otherwise sterile peritoneal cavity leading into serious morbidities or rarely it may lead to a drain site incisional hernia.

An incisional hernia is a hernia which arises from previous surgery or trauma site. Very rarely but sometimes incisional hernia arises from previous drain site which as a custom is never closed after the removal of drain. Incisional hernia arises due to patient's factor like poor nutritional status, presence of comorbidities, advancing age, multiple pregnancies, obesity or due to surgeon's factor. The drain site hernia results from the cumulative effect of patient's and surgeon's factor.

Our study is to know about the incidence of drain site hernia, it's percentage in overall incisional hernia and developing a strategy to avoid it.

MATERIALS & METHODS

A retrospective study was conducted on patient admitted in different wards of general surgery, PMCH, Patna admitted through surgery OPD or surgical emergency from September 2020 to September 2022.

A total number of 300 patients were selected for the study with features of incisional hernia, later confirmed by radiological evidences fulfilling the inclusion and exclusion criteria.

Inclusion criteria

1. Patient with incisional hernia
2. Defect size ≤ 2 cm

Exclusion criteria

1. Incisional hernia with defect size ≥ 2 cm

A total no 300 patients of incisional hernia were selected with defect size of ≤ 2 cm. In all patients, the swelling was over the main incision site but in 8 patients swelling was on some other site, in laparotomy cases over the lower quadrant of abdomen and in cholecystectomy cases over the right upper quadrant i.e. the drain site. Among these 8 patients 2 patients were operated for cholecystectomy and 6 patients were undergone emergency laparotomy. All 8 patients had poor nutritional status and history of strenuous job. 7 patients had a history of early return to job while 1 patient had a history of wound infection.

Among all 8 patients, 7 patients came through surgery OPD with complain of a small swelling, which comes on straining or coughing and disappears on lying down. Cough impulse was present and the patients complained of mild on and off pain. Intraoperatively a small defect of 1 - 1.5 cm found in each case which could not heal spontaneously post operatively and led to hernia. The defect was closed primarily with PDS 1 no.

1 patient came to surgical emergency with complain of severe abdominal pain and not passing stool and flatus from 1 day. On exploratory laparotomy, a part of small gut was found strangulated in the defect. The strangulated part was resected and both ends were anastomosed with vicryl 3 - 0 round body continuous suture in two layers.

RESULTS & DISCUSSION

Among all 300 patients with incisional hernia, 8 patients had hernia through drain site. The drain site is never repaired after drain removal. It heals spontaneously as it uses to be a very small defect of ≤ 1 cm. Sometimes due to poor build of patient or presence of any comorbidities or early return to strenuous work or large incision or wound infection, these small defect failed to heal spontaneously and leads to incisional hernia.

Drain site hernia use to be asymptomatic or with very less symptoms usually as defect size is very small but sometimes due to the very small size the content get strangulated increasing morbidity and mortality many folds.

Among all 300 patients with incisional hernia only 8 had drain site hernia which is calculated as 2.67 % only but even than we cannot ignore it as it is an avoidable hernia.

We had a practise of putting drain in every case, in emergency cases we cannot avoid it as fate of surgery is completely unpredictable there but in elective cases, where surgery is planned always, patient is taken after full fitness we can avoid unnecessary drain. If the drain is needed, we can opt for smaller size drain. We can go for early removal of drain, gentle removal of drain and closing of drain site after drain removal.

Drain site hernia is a rare entity but as a doctor it's our duty to avoid as many morbidities as possible and even if it helps only one patient, it counts.

CONCLUSION

Drain site hernia is a rare entity occurring because of cumulative factors from both patient and surgeon. It cannot be avoided completely as placing drain intraperitoneally is an essential step in various

surgeries but it can be avoided by certain means like avoiding unnecessary drain, opting for smaller size, keeping for shorter period, proper wound care, gentle extraction and closure of wound after removal apart from taking care of patient's factors.

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