



Incidence of Incisional Hernia in V.s. General Hospital

KEYWORDS

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ABSTRACT *Incisional hernia is a common complication of abdominal surgery and important source of morbidity. It may be repaired using anatomical , mesh or laparoscopic method. This study analyses various etiopathogenesis and modes of presentation. The study was carried out from OCT. 2014 to NOV. 2015.*

200 patients with incisional hernia who got admitted at V.S. general hospital in department of surgery were subject to anatomical or mesh repair.

Incisional hernia was found to be the second most common type of hernia. Incidence was more common in females who underwent gynecological procedure by lower midline incision. It was found to be more common in age group of 50-59 years. Predominant risk factors being wound infection seroma formation, associated anemia and respiratory tract infection

INTRODUCTION

Incisional hernia as a diffuse extrusion of peritoneum and abdominal contents through a weak scar of an operation or accidental wound. Incisional hernia is a common surgical problem, a common sequel of surgical interventions. It is the result of a failure of fascial tissues to heal and close following laparotomy. Incisional hernia occurs in 2-11% of patients subjected to abdominal operations . Many factors are associated with incisional hernia like age, sex, obesity, chest infections, type of suture material used and most important wound infections. Several studies have shown that Incisional hernias have different etiologies, which are related to the patient , the surgical technique, the suture material and the experience of the surgeon.

The etiological factors are usually acquired. May result from any condition which tends either to weaken the abdominal parietes or to increase the intra-abdominal pressure. The seeds of incisional hernia are sown at the time of the operation or during convalescence. The predisposing factors for Incisional hernia are related to the patient, the surgical technique, the suture material, postoperative complications and a few relate to surgeon's decision making and custom of approach to specific disease

processes.

Several studies have found age greater than 65 to 70 predisposes a patient to wound dehiscence. Anemia, vitamin C deficiency and emergency operation were also found to be significant variables in a study. Wound infection is commonly cited as the most significant independent prognostic factor for incisional hernia . Postoperative wound infection was associated with a fivefold increase in the risk

of development of a hernia compared with patients with uninfected wounds .Increase in the intraabdominal pressure in post-operative period, as a result of post-operative abdominal distension due to full bladder, uncontrollable cough, retching and vomiting, straining at stool and urination and intestinal ileus weakens the wound. All of these factors were significantly related to wound dehiscence. No abdominal incision is immune to the development of incisional hernia and it has occurred in almost every type of abdominal incisions. The first symptom of an incisional hernia is usually an asymptomatic bulge noticed by the patient. The bulge can be noticed directly over the scar or in an adjacent area locally related to Symptoms of incisional hernia include a feeling of heaviness, pain or discomfort in the abdomen, as well as constipation or may present as a cosmetic concern. Symptoms will usually be aggravated by coughing or straining as the hernia contents protrude through the abdominal wall defect.

MATERIALS AND METHODS

A clinical prospective study of incidence of incisional hernia in one year duration at V.S general hospital has been carried out. All patients underwent surgical treatment. Choice of surgery was determined by the extent of disease and associated pathology

STATISTICS AND RESULTS:

In the present study, incisional hernia is more common in females; especially in fourth and fifth decade. This may be because of the frequency with which certain operations are performed at this time of life. Incisional hernia occurred at an early age in this study as compared to westerners (see Table 1), probably because of early marriage & multiple

pregnancies in Indian women which leave the abdominal wall weak.

TABLE 1: Distribution of age

AGE	NO.OF CASES	PERCENTAGE
20-29	4	2%
30-39	28	14%
40-49	60	30%
50-59	68	34%
60-69	40	20%

In this study, the sex ratio of male to females being 1:2 (see Table 2). The preponderance of females merely indicates the greatest proportion of women in undergoing surgery at V.S GENERAL HOSPITAL AHMEDABAD (2014-2015). The female preponderance in the occurrence of incisional hernia is probably due to laxity of abdominal wall due to repeated pregnancy and associated obesity which usually is associated with a higher incidence of post-operative infection.

Table 2. Distribution of sex.

SEX	NO.OF CASES	PERCENTAGE
MALE	72	36%
FEMALE	128	64%

On evaluation of associated risk factors in the occurrence of incisional hernia, it was found that diabetes and cough appeared to be the most common risk factor in the study.

Table 3. Associated risk factors.

RISK FACTORS	NO.OF CASES	PERCENTAGE
Anemia	36	18%
Hypoproteinemia	44	22%
Cough	76	38%
Straining at micturition/ stool	30	15%
Hypertension	60	30%
Diabetes	84	42%
Lung disease	20	10%

Nature of surgery also affects as in emergency surgeries like LSCS, Laprotomy high risk patients are also taken and the method of closure also affects.

Table 5. Nature of primary surgery.

Nature of surgery	NO.OF CASES	Percentage
Emergency	128	64%
Elective	72	36%
Total	200	100%

Postoperative wound infection and seroma formation during primary surgery also affects the incisional hernia formation.

Table 6. Postoperative complication of primary surgery.

Complication	No of cases	Percentage
Wound infection	76	38%
Seroma	44	22%
Wound dehiscence	16	8%

DISCUSSION:

The incidence of incisional hernia common in fourth and fifth decades it is more common in females with the male to female ratio of 1:2. Abdominal swelling was the commonest presenting complaints. Abdominal pain and vomiting were other complaints. Incisional hernia in females was more common in multiparous women. Anemia, respiratory tract infection (RTI), diabetes and hypertension were associated diseases with incisional hernia. Infection in post-operative period did seem to be the commonest predisposing factor for weakening of the scar. Diagnosis of incisional hernia was possible in all cases by clinical examination alone without resorting to any special investigation. Incisional hernias were treated by mesh repair method.

Meticulous aseptic technique and careful closure of the abdominal wound is necessary to prevent incisional hernia.

CONCLUSION

Incisional hernia is more seen in female, who are multiparous. It is mostly presents with swelling and pain in abdomen. Previous elective and emergency surgeries in lower midline have higher percentage of incisional hernia. Post-operative wound infection, seroma formation, associated anemia and respiratory tract infection are the risk factor for incisional hernia. Proper preoperative preparation, aseptic technique, careful closure of abdominal wound decreases the incidence of incisional hernia

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