

ORIGINAL ARTICLE

Assessment of cases of incisional hernia

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ABSTRACT:

Background: Incisional hernia is an iatrogenic hernia. The present study was conducted to assess cases of incisional hernia. **Materials & Methods:** 64 cases of incisional hernia of both genders were divided into 2 groups of 32 each. Group I was treated with inlay and group II were treated with sublay technique. Routine investigations such as CBC, bleeding time, clotting time etc. was done. Ultrasound (USG) abdomen was done in all patients. **Results:** Group I comprised of 28 males and 12 females and group II had 16 males and 24 females. Common complication reported was seroma formation 3 in group I and 1 in group II, wound dehiscence 2 in group I and recurrence 2 in group I and 1 in group II. Risk factors were diabetes was seen in 7 and 5 in group II, obesity was seen in 4 in group I and 2 in group II and smoking was seen in 10 in group I and 13 in group II. **Conclusion:** Common risk factors were diabetes, obesity and smoking. Common complication reported was seroma, wound dehiscence and recurrence.

Key words: Incisional hernia, Seroma, Sublay technique

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INTRODUCTION

Incisional hernia is an iatrogenic hernia. It is a common complication after abdominal surgery with a reported incidence of 11-20%. Incisional hernia is defined as any abdominal wall gap with or without a bulge in the area of a postoperative scar perceptible or palpable by clinical examination or imaging.¹ More often than not the problem is recurrent and tests the abilities of even the most experienced surgeons. Unlike other abdominal wall hernias, which occur through anatomical points of weakness, incisional hernias occur through a weakness at the site of abdominal wall closure.²

The risk factors for the development of incisional hernia include obesity, diabetes, emergency surgery, postoperative wound dehiscence, smoking and postoperative wound infection. The risks of repairing an incisional hernia which should be explained to the patient when obtaining consent include seroma formation, wound infection, injury to intra-abdominal structures and recurrence. Major complications which can occur in repair of large incisional hernias include mesh infection and enterocutaneous fistula which may result in prolonged morbidity and require re-operation.³ Surgeons appear to have a reluctance to

operate on incisional hernias perhaps because of the poor general condition of the patients but perhaps also due to lack of knowledge of how to deal with the various defects occurring as a result of incisions of the anterior abdominal wall and the operative techniques required.⁴ The modern age of hernia repair began with the introduction of synthetic mesh to reinforce a previous sutured repair. Open pre-peritoneal mesh repair significantly reduced the recurrence rate.⁵ The present study was conducted to assess cases of incisional hernia.

MATERIALS & METHODS

The present study comprised of 64 cases of incisional hernia of both genders. All agreed to participate in the study.

Data such as name, age, gender etc. was recorded. Patients were divided into 2 groups of 32 each. Group I was treated with inlay and group II were treated with sublay technique. Routine investigations such as CBC, bleeding time, clotting time etc. was done. Ultrasound (USG) abdomen was done in all patients. Data thus obtained were subjected to statistical analysis. P value < 0.05 was considered significant.

RESULTS

Table I Distribution of patients

Groups	Group (32)	Group II (32)
Status	Inlay repair	Sublay repair
M:F	20:12	18:14

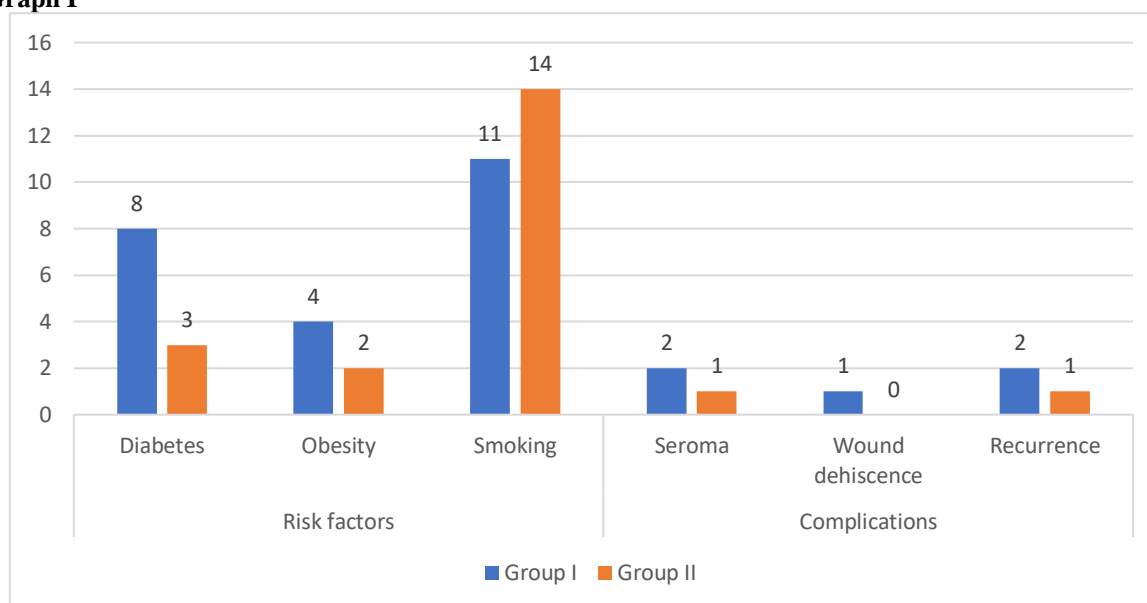
Table I shows that group I comprised of 20 males and 12 females and group II had 18 males and 14 females.

Table II Assessment of parameters

Parameters	Variables	Group I	Group II	P value
Risk factors	Diabetes	8	3	0.05
	Obesity	4	2	
	Smoking	11	14	
Complications	Seroma	2	1	0.04
	Wound dehiscence	1	0	
	Recurrence	2	1	

Table II, graph I shows that common risk factors were diabetes seen in 8 in group I and 3 in group II, obesity 4 in group I and 2 in group II and smoking 11 in group I and 14 in group II. Common complication reported was seroma seen 2 in group I and 1 in group II, wound dehiscence 1 in group I and recurrence 2 in group I and 1 in group II. The difference was significant ($P < 0.05$).

Graph I



DISCUSSION

The exact global incidence of incisional hernia is unknown.^{6,7} Presumably, the wide variation in abdominal approaches, comorbidities among patients and techniques for surgical closure of the abdominal wall leads to a broad range of incidence rates, significantly differing between the various patient populations.^{8,9} In 1985, Mudge and Hughes estimated the incidence of incisional hernia after abdominal surgery in a long-term prospective study to be 11%; however, at the end of the 10-year follow-up, only 60% of patients were available for analysis.¹⁰ It is not uncommon that patients with incisional hernia experience social exclusion and are limited in their ability to work. In addition, self-care may be substantially impaired.^{11,12} The present study was conducted to compare different treatment modalities of management of incisional hernia.

We found that group I comprised of 20 males and 12 females and group II had 18 males and 14 females. Sajid et al¹³ in their study 150 candidate patients for inguinal herniorrhaphy were randomly divided into two groups: (1) classic group in which the floor of the canal was repaired and the mesh was located on the floor of the canal and (2) preperitoneal group in which

the mesh was installed under the canal and then the floor was repaired. The frequency of recurrence was 10 (13.3%) and 2 (2.66%) in the classic and preperitoneal group, respectively. The frequency of postsurgical pain was 21 (28%) in the classic group and 9 (12%) in the preperitoneal group. The postsurgical hematoma was observed in 7 (9.3%) and 9 (12%) in the classic and preperitoneal group, respectively. Also, the frequency of postsurgical seroma was 8 (10.7%) and 1 (1.3%) in the patients treated with the classic and preperitoneal method, respectively. Results demonstrated that the preperitoneal method is a more suitable method for inguinal herniorrhaphy than the classic one because of fewer complications.

We observed that common risk factors were diabetes seen in 8 in group I and 3 in group II, obesity 4 in group I and 2 in group II and smoking 11 in group I and 14 in group II. Common complication reported was seroma seen 2 in group I and 1 in group II, wound dehiscence 1 in group I and recurrence 2 in group I and 1 in group II. Langer and colleagues¹⁴ included 400 incisional hernia operations over a 25-year period, estimated that the most important prognostic factor is the surgeon's experience. For a surgical team

to offer a complete service for abdominal wall reconstruction, the following techniques should be mastered: prosthetic materials, abdominal components' separation, tissue expansion, vacuum-assisted closure devices, local and distant muscle flaps, and free tissue transfer. This usually means that the abdominal surgeon will be working in partnership with plastic surgeons.

Dietz et al¹⁵ evaluated laparoscopic techniques which compared and analyzed the patients' quality of life. It was found that open surgery and laparoscopic surgery for the repair of incisional hernias have similar rates of reoperation. The rates of surgical complications are also similar, although the data are highly heterogeneous, and the recurrence rates are comparable as well.

CONCLUSION

Authors found that common risk factors were diabetes, obesity and smoking. Common complication reported was seroma, wound dehiscence and recurrence.

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