

AN EXPERIENCE WITH REPAIR OF INCISIONAL HERNIAS

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SUMMARY

A review study of 78 cases of incisional hernia repair is presented, performed over a period of four years, i.e. December 1986 to December 1990. Repair of incisional hernia accounted for 5.2% of repairs of all herniae. Various factors causing this iatrogenic hernia are identified, leading being pulmonary disease before surgery and in the immediate postoperative period and wound contamination.

INTRODUCTION

Scar hernia repair is an elaborate issue and different surgeons in the world have preferences for different methods of repair. We have found that repair procedures and the types of operations are best selected on individual merit, considering the size of the hernia, physique and the condition of the patient. No one method can be adopted as ideal for all the repairs.

MATERIAL AND METHODS

All these patients were admitted from the outpatients department of Lady Reading Hospital, Postgraduate Medical Institute, Peshawar. They were selected for surgery after necessary preoperative workup. Occasionally help of physicians and physiotherapists was sought before operation. Most of these patients had symptoms of abdominal pain, vomiting, distension and repeated attacks of strangulations.

In small hernia anatomical restoration was done. The sac was dissected and the gap was repaired by approximating the fascial and muscular layers. These repairs were satisfactory in all the patients. In large hernia, various procedures were undertaken depending on the size of hernia and individual concerned. All these repairs

were quite satisfactory and there was no recurrence and recovery was uneventful. In case of a long duration hernia with loculated sac, the sac was excised, adhesions released and repair was done from within starting from the peritoneal layer.¹

In other large hernias, where there was no suspicion of adhesions or intestinal obstruction, repair was done by Keel's procedure and peritoneum was not opened.² In young adult male cases, repair was done by a method described by H Ibrahim et al.³ These patients were quite fit otherwise and had big scar hernia with a very thin and shining skin. This skin was actually adherent to the underlying peritoneum and could not be separated from it. An elliptical incision was made around the scar and dissection was commenced laterally, the edge of rectus sheath was approximated over the skin. The adherent skin with peritoneum as its posterior covering was inverted in the form of a tube after approximation of two edges and this acted as the best form of autograft in the gap, no synthetic graft was used. We had no postoperative complications in this method. Meticulous cleaning of the skin with hibiscrub and later with iodine solution is imperative, strict asepsis and a Redivac vacuum drain is a key to success.³

TABLE-1
CAUSES OF INCISIONAL HERNIA

Causes	No. of patients	Percentage
A. Cough, chronic obstructive airway disease	25	32%
B. Emergency operations with contamination e.g. fire arm injuries	27	34%
C. Postoperative wound dehiscence	3	3.8%
D. Malignancies of abdominal viscera	3	3.8%
E. Collection of blood, serous fluid and wound abscesses	15	19%
F. Ascites	4	5%
Total	77	

In obese patients with large hernias where fascial approximation was difficult, Mercilene mesh graft, or marlex net was used.^{4,5,6}

RESULTS

In an attempt to find out causes of incisional hernia, a commonly prevalent surgical problem in Pakistan, all operations performed from December 1986 through to December 1990 were extensively investigated. Wound infections in emergency operations especially in firearm injuries were identified as the leading cause, 27 (34%). Cough and other respiratory tract diseases were the second commonest cause, 25 (32%). In some cases, 15 (19%), incisional hernia was due to the collection of blood serous fluid leading to wound abscess. Very few patients were encountered with post operative wound dehiscence (3.8%), malignancies (3.8%) and ascites (5%). (Table-1).

The worst age groups in our patients were 30-50 and 50-70 years (Table-2). The children and young adults were also involved but the number of patients in this group was small. This is probably because of a faulty technique of the closure of the wound that resulted in postoperative hernia.

Only in one patient infection and a discharging sinus persisting for more than

three months was observed. The synthetic graft was then taken out and fascial repair was done, the patient did not develop any recurrence.

DISCUSSION

An incisional hernia starts as a symptomless partial disruption of the deeper layers of a laparotomy wound.⁴ Gerdy is recorded to have repaired an incisional hernia in 1938. Maydile is credited with incisional hernia repair in 1906 and Gibbson in 1920.⁷ About 10% of all the hernioplasties, performed in general hospitals, are for the repair of incisional hernia. The high incidence may be because the cause that was present at the time of first closure of the wound persisted during the second closure. The mechanical repair is more effective and better placed than the synthetic graft.

TABLE-2
AGE DISTRIBUTION

Age group	No. of cases	Percentage
10-30	10	12.8%
30-50	37	47.7%
50-70	25	32%
Above 70 years	6	
Total	78	

This type of hernia is not decreasing in frequency probably due to lack of cooperation by the patients in reducing obesity, smoking habits and not having a proper care for the cough or the pulmonary disease.⁸ The repair was once done by skin ribbons and fascia lata.⁹ Fascial repair is now limited to small hernias and all the large hernias are mostly treated by application of synthetic graft, which have given good result in prevention of recurrences and helped in early recovery.^{4,5,10} Some surgeons used to have preoperative pneumoperitoneum and this had helped the repair effectively.¹¹ The length of suture material is also important and it is directly related to geometry of the wound and to its subsequent healing.²

An incisional hernia should be repaired unless the patient is unwilling or unfit for surgery.¹⁴ The recurrence rate in the international figures can be as high as 20% if the repair is under tension.¹⁴ An infection rate of 8% and a chronic sinus formation in 12% of cases was observed with Marlex mesh.¹³

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