



ORIGINAL RESEARCH PAPER

Surgery

STUDY OF INCISIONAL HERNIA

KEY WORDS:

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ABSTRACT

Incisional hernia also called as ventral hernia occurs at the operation site. They usually occur as a result of inadequate healing of the previous incision or excessive strain at the site of an abdominal wall scar. 30 cases of incisional hernia were studied at Jawarharlal Nehru medical college Sawangi. The incidence of incisional hernia was higher in lower midline incision (i.e. post LSCS and post tubectomy) . incidence was more in emergency cases. The present study will find out the cause and better method of repair of incisional hernia.

INTRODUCTION:

Incisions are designed simply to gain entry into the abdominal cavity. Surgeons became aware that certain incisions were followed by wound disruptions and incisional hernia was recognised that vertical midline incisions were the most common site of post operative incisional hernias. It is often written that incisional hernia is an iatrogenic disease. Watson has stated that operation is often performed as an emergency or hurriedly to relieve the symptoms. It is natural to make the abdominal incision in the quickest and easiest way without occurrence of post operative hernia. Also claude stated that more natural as the immediate aim of a surgeon while performing emergency operation is to save the life of the patient and also the repair of incisional hernia is not hazardous unless it is very large. The study of incisional hernia entails knowledge of anatomy of abdominal wall including its vascular and nerve supply and various muscles taking part in its composition. It would also embrace the physiology of incision and wound healing. Jawarharlal Nehru medical college and hospital Sawngi is a hospital which drains mixed population ,where all types of operations are done, either in emergency or as a routine case. In spite of every care the incidence of incisional hernia was noted by me to be large which stimulated me to carry out work to find out the cause , incision and better procedure for the treatment of incisional hernia at this college and hospital.

PATIENTS AND METHODS :

The study included 30 patients seen in Jawarharlal Nehru medical college Sawangi.

Aims and objectives of the study

- 1) study of incidence of incisional hernia at JNMC.
- 2) study of various etiological factors for incisional hernia
- 3) most effective mode of repair of incisional hernia

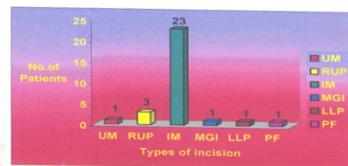
a detailed inquiry was made regarding the history of previous operation, its nature, post operative period and progress of the present hernia. Thorough general examination was done to know the general condition of health. Local examination was done to know the size of defect, reducibility and tone of abdominal muscles. Past history of conditions like anemia ,diabetes mellitus, bronchitis, hypertension, ischemic heart disease was inquired. Patient was prepared for surgery. No rigid criteria were followed regarding the choice of operation. Anatomical repair was recommended for small size hernia, Vertical overlap repair was followed in patients whose vertical defect were larger, Prolene mesh repair was carried out in larger incisional hernia with wide transverse defect. Another method is anatomical repair re inforced by onlay prolene mesh repair. It provide additional strength to anatomical repair by onlay mesh.

RESULTS:

30 cases were studied in Jawarharlal Nehru medical college Sawangi. for a period of 26 months. Incidence of incisional hernia

according to age was studied and it was found that the maximum incidence were from the age group 41 to 50 years. This is due to the fact that most of the patients were female patients who met with L.S.C.S. & tubectomy. As these procedures were carried out much hurriedly and improper suture material is used without much attention to future occurrence of incisional hernia. Sex distribution studied showed that females had higher preponderance for incisional hernia with male to female ratio of 1 : 4. This is due to the fact that most of the female patients met with LSCS & tubectomy. Also the muscle tone in females is not good. Incidence of incisional hernia according to type of previous incisions was studied. It showed that inferior umbilical mid line incision showed highest preponderance as compared to other incisions

BAR DIAGRAM SHOWING OF INCIDENCE OF INCISIONAL HERNIA IN DIFFERENT TYPES OF INCISION

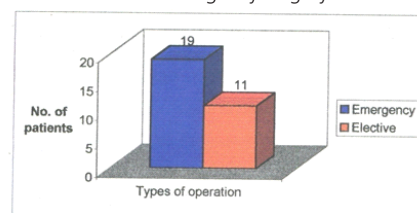


UM - Upper Midline
 RUP - Right Upper Paramedian
 IM - Infrumbilical Midline
 MGI - Macburney's Grid Iron
 LLP - Left Lower Paramedian
 PF - Pfannenstiel

the higher incidence in midline vertical incision is related to the fact that these operations are carried out in emergency or hurriedly .linea alba is less vascular , absence of posterior rectus sheath in lower one third of the abdomen, forces of action of abdominal wall act transversally therefore they cause stretching effects over the wound margins.

The first appearance of incisional hernia was studied and it was found that first appearance of incisional hernia is more in 6-12 months duration from initial operation.

Incidence of incisional hernia was studied in planned and emergency operations. It showed that the incidence of incisional hernia is more common in emergency surgery



BAR DIAGRAM SHOWING INCIDENCE OF INCISIONAL HERNIA IN EMERGENCY AND ELECTIVE SURGERY.

this is explained on following grounds.

- 1) Very nature of the operation giving no time to preparation.
- 2) pre-operative hypo proteinemia & anemia which is present in our patients.
- 3) higher incidence of infection in emergency operations.
- 4) lack of pre-operative cardiac and respiratory evaluation and necessary corrective measures incidence of incisional hernia associated with other complaints. In our study the incidence of incisional hernia is more common in infected wounds which is one of the important causative factor.

Regarding the choice of operation, anatomical repair was carried out for small sized defect. Double breasting was carried out for similar types of defect with larger vertical defect. Prolene mesh repair was carried out for larger size of defect. In our series there was no post operative death and no recurrence till date. This may be due to shorter duration of follow up.

SUMMARY AND CONCLUSION :

- 1) Incisional hernia is basically iatrogenic hence the treatment should begin with its prevention.
- 2) Majority of our patients were from 4th -5th decade of life
- 3) Female patients have little higher preponderance over male.
- 4) Most patients presented after 1-12 months of surgery.
- 5) Abdominal bulge was present in all patients which was reducible.
- 6) The incidence of incisional hernia is higher in lower midline incision (post LSCS and post tubectomy).
- 7) Emergency operations were carried out in 19 cases and planned in 17 Incidence was more in emergency operations
- 8) The incidence of incisional hernia is more in patients having history of wound infection, which is a major etiological factor.
- 9) Pre-operative weight reduction help to improve overall result of the reconstructive procedure.
- 10) Anatomical repair and double breasting is suitable for small sized hernia, whereas prolene mesh repair is successful for large size defects. Anatomical repair with onlay mesh plasty is very effective in adding extra strength to anatomical repair
- 11) In our study no recurrence is found.

CONCLUSION:

The fact that incisional hernia is the commonest variety of herniation through the anterior abdominal wall, shows the responsibility squarely on the surgeon. He who makes an incision for a laparotomy should know how to make it, where to make it and most important of all how to close it well. Sound knowledge of the anatomy of anterior abdominal wall, a good understanding of the process of wound healing, strict adherence to the principles of aseptic surgery and proper selection of suture material may in future reduce its incidence.

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