

Original Article

Incisional Hernia Cases and Repair in last five years at Dhaka National Medical College Hospital (DNMCH)

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Abstract

Background: An incisional hernia is a hernia that occurs through a previously made incision in the abdominal wall. A good number of patients presents with Incisional Hernia following various surgery at various stages. Though safe, surgical approach is widely adopted, still incisional hernia continues.

Objective: Evaluation of patients presenting with incisional hernia and also to observe the hazards of hernioplasty.

Materials and Methods: It is a retrospective study carried out in Surgery dept. at unit-I, DNMCH from June 2011 to May 2016 among the admitted patients, who underwent surgical repair in this hospital.

Results: This study includes 34 (n=34) women between 26 to 65 yrs (mean age-37.32) yrs of age. Most of them are from middle & lower middle class family. Among the 34 women, 31 (91.18%) previously had various lower abdominal surgery, 1 person had post-traumatic repair surgery, 2 (5.88%) had hernia from umbilical port following laparoscopic surgery. 28 (82.35%) women were obese. 4 (11.77%) patients were diabetic, 2 patients have chronic bronchial Asthma, 6 (17.7%) patients gave history of wound infection following primary surgery. After proper evaluation, hernioplasty with Prolene Mesh was done. Among the 28 obese persons, 20 (58.8%) patients developed variable degree of seroma. 19 patients recovered subsequently but persists in one patient where seroma persisted for up to 6-wks. She was advised for readmission & removal of mesh under anaesthesia. Average hospital stay is 6 days but follow-up continued up to 8 wks.

Discussion: Obesity is the commonest reason for incisional hernia. Diabetes mellitus & Bronchial Asthma must be controlled before elective surgery. Regarding post-operative seroma, it is a recognized complication of synthetic mesh induced hernioplasty.³

Conclusion: Social awareness must be created against obesity.

Key word: Incisional hernia, Obesity, Prolene mesh.

Introduction

A hernia is a protrusion of a viscus or part of a viscus through an abnormal opening in the wall of its containing cavity. An incisional hernia is a hernia that occurs through a previously made incision in the abdominal wall. 1-2% patients present with incisional hernia following various abdominal surgery at various stages. It usually starts as a symptomless partial disruption of the deeper layer during the immediate or early post-operative period, the event passing unnoticed if skin wound repair intact after the skin sutures have been removed. Incisional hernia can develop and enlarge months or years after surgery, but they are most likely to happen 3-6 months after surgery.¹ These patients need surgical intervention to prevent complications. The treatment of choice is Herniotomy & Hernioplasty under anaesthesia after proper evaluation.

Etiology and pathogenesis:

Risk factors:

1) Patient factors:

Obesity.

Protein energy malnutrition.

Immuno-suppression (DM & HIV Patients, Malignancy patients receiving Chemo & or Radiotherapy & steroid therapy.)

Chronic cough.

Heavy weight lifting.

Malignancy.

2) Wound factors:

Poor quality tissue.

Deep wound infection.

3) Surgical factors:

Inappropriate suture materials, Incorrect placement of suture.

The Clinical classification is as flows:

- Occult - not detectable clinically; may cause severe pain
- Reducible - a swelling which appears and disappears
- Irreducible - a swelling which cannot be replaced in the abdomen, high risk of complications
- Strangulated - painful swelling with vascular compromise, requires urgent surgery
- Infarcted - when contents of the hernia have become gangrenous, high mortality

Herniotomy & Hernioplasty

Whatever the reason and stage of hernia, herniotomy following identification of the sac, separation and reduction of the contents is to be done. Hernioplasty using mesh is to be done to reduce the recurrence³.

Types of Mesh

Inorganic (synthetic) Prolene mesh, combined polyglycolic acid & Prolene mesh and relatively temporary TIGR matrix mesh⁵. Biological (Biomesh-organic biomaterial eg, bovine/porcine dermis or small bowel)⁶. Among the different variety of mesh, prolene mesh is relatively inexpensive, easily available and better tolerated.

Objective: Evaluation of patients presenting with incisional hernia & also to observe the hazards of hernioplasty.

Material and Method: It is a retrospective study carried out in Surgery dept. at unit-I, DNMCH from June 2011 to May 2016 among the admitted patients, who underwent surgical repair in this hospital. Most of the patients are from middle & lower middle class family.

Results

In this study, 34 women (n-34) is included of various age ranging from 26 to 65(mean age-37.32) yrs. They had variable primary surgery.

Table-I: Primary surgery.

Type of surgery	No. of patient	%
Lower abdominal surgery including LUCS & Hysterectomy.	31 (LUCS 25 &	91.18
Post-trauma repair surgery.	TAH 6)	2.94
Umbilical port hernia following laparoscopic surgery.	1 2	5.88

Table-II: Etiological factors.

	No. of patient	%
Obesity/ morbid obesity	28	82.35
Diabetes mellitus	4	11.76
Chronic asthma	2	5.88
Wound infection	6	17.65

Table-III: Type of Hernia.

	No. of patient	%
Irreducible	32	94.12
Reducible	2	5.88

After proper evaluation, hernioplasty was done using prolene mesh in all 34 patient.

Table-IV: Results of Hernioplasty.

Complications	No. of patient	%
Seroma	20	58.82
Mesh rejection	1	2.94

None of the patient of this series developed surgical site infection, hematoma or other complications of surgery. Average hospital stay is 6 days but follow-up continued for upto 8 wks.

Discussion

Observing the history and clinical examination of incisional hernia, it may be concluded that most of the hernia follows all three factors (patient, wound & surgical factors). A surgical scar, even with perfect healing, has only 70% of the initial muscle strength. This loss of strength can result in hernia in 10% surgical incisions. Laparoscopic port hernia is 1%.³ Poor tissue quality in obese patients eventually results in incisional hernia. Lack of awareness and delayed presentation increases the incidence of irreducible hernia.³ Regarding post operative seroma, Prolene was used in all patients considering its property, cost & availability.

Conclusion

Patient selection combined with proper surgical technique & wound care may improve this clinical condition.

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