

DARNING TECHNIQUE VERSUS MESH (LICHTENSTEIN PROCEDURE) for PRIMARY INGUINAL HERNIA REPAIR

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Abstract:

The present study was aimed to compare the complications percent in repair of mesh to tension free repair of Darn. Methods: 127 patients from 20-66 years old, including 93 (73.2%) male and 34 (26.8%) females, reported for direct and indirect inguinal hernia with open Mesh/Lichtenstein (58 patients) or Darning repair (69 patients) in Khanagin general hospital and Jalawla general hospital from February 2017 to February 2020. The first point was to compare hernia recurrence with two types of technique. Results: Complications of recurrence in Lichtenstein repair were 1 patient (1.7%) with compared to darning repair which had a recurrence of 3 patients (4.34%). also, 3 patients (4.34%) got seroma in the darning repair technique while 2 patients (3.45%) in the mesh repair technique. Hematoma was appeared in 1 patient (1.45%) in darning repair group and nil in the mesh/Lichtenstein repair group. 2 patients (2.90%) treated by darning repair suffered from chronic pain while 1 patient (1.7%) suffered from chronic pain in mesh/Lichtenstein repair group. Conclusion: mesh/Lichtenstein repair is very promising in comparison to the other technique, darning repair, in complications in hernia.

Keywords: darning repair, inguinal hernia, seroma, mesh/Lichtenstein repair

INTRODUCTION

Hernias term are oldest recorded disorders and diseases of mankind and they are most commonly located in the area between the abdomen and the thigh on either side of the body known as the groin [1-2]. The most studies referred that the rise inguinal hernia prevalence in old age and it is reach about 50% in old men per year [3]. The inguinal hernias could be classified into two types the lateral and medial types. The lateral hernias are almost found only in children, whereas two types found in women and men [4]. Lateral hernias are the most common type, but medial type is a higher danger to repeat after repair step [5-6]. The option of inguinal hernia repair is still controversial. It comprise different open techniques like Herniotomy technique, which used only in children (less 15 years) and in adults Bassini's repair, various Darnings kinds, the repair of Shouldice, the repair of Lichtenstein, and Prolene Hernia System (PHS) [7]. The mainly risk factors for producing and developing an inguinal hernia disease could be classified into personal risk factors like age and gender [8], and external risk factors like physically demanding stress and other factors [9-10]. though, mesh repair use for inguinal hernia is now have acceptance in our field, the methods of non-prosthetic are remain find acceptance in emergency like obstruction state or strangulation state, which are rare modes of presentation [11-12].

PATIENTS & METHODS

127 patients (including 93 male and 34 female) between the age of 20-66 years old. The patients were excluded from this study (not included) are those:

1. The children below 12 years old, as they do not need for repair, i.e., just herniotomy.
2. The patients who complain from chronic diseases in addition to inguinal hernia, such as chronic obstructive airway disease, diabetes mellitus and malignant disease.
3. The patient who had morbid obesity or overweight.

They were reported for direct and indirect inguinal hernia with open Mesh/Lichtenstein or darning repair in Khanagin general hospital and Jalawla general hospital from February 2017 to February 2020.

The first point was to compare recurrence of hernia with two types of technique. The patients of hernias were repaired by utilizing the technique of Darning after that selected the patients for further review. Some socio-demographic properties of patients (age and gender), the details of operative (anesthesia ways and operation period) and postoperative results were obtained. The measures of Postoperative results were inclusive hematoma, seroma and the chronic pain. The chronic pain of patients was defined in the present study like the suffering of pain in inguinal hernia patients' follow - up records after 6 months period after the operative date. The information of certain result measures in current study was based on registration of the patient notes through follow-up clinic visits. The analysis of outcomes was done by using statistic program known as SPSS (version 22). the data of current study were expressed as frequencies and percentages with several of results presented in tables. Cross-tabulations were done to compare the relationship between recurrence and other variables.

RESULTS

127 patients from 20-66 years old, including 93 (73.2%) male and 34 (26.8%) females as shown in table (1), reported for direct and indirect inguinal hernia with open Mesh/Lichtenstein (58 patients) or Darning repair (69 patients) as shown in table (2).

Table (1): Number and percent of patient's gender

Gender	Number	Percentage (%)
Male	93	73.2%
Female	34	26.8%
Total	127	100%

Table (2): Techniques repair of patients

Gender	Number	Percentage (%)
Darning repair	69	54.3%
Mesh/Lichtenstein	58	45.7%
Total	127	100%

Complications of recurrence in Lichtenstein repair were 1 patient (1.7%) with compared to darning repair which had a recurrence of 3 patients (4.34%).

3 patients (4.34%) got seroma in the darning repair technique while 2 patients (3.45%) in the mesh repair technique.

Hematoma was appeared in 1 patient (1.45%) in darning repair group and nil in the mesh repair group.

2 patients (2.90%) repair suffered from patient (1.7%) chronic pain in mesh shown in table (3).

Table (3): Complications and

Complications	Darning repair	Mesh repair	P value <0.05
Recurrence rate	3 (4.34%)	1 (1.72%)	0.2172
Seroma	3 (4.34%)	2 (3.44%)	0.5023
Hematoma	1 (1.45%)	0	1
chronic pain	2 (2.90%)	1 (1.72%)	1
Total	9	4	-

treated by darning chronic pain while 1 suffered from repair group as

recurrent rate in both groups

DISCUSSION

The different repair techniques of hernia repair could be in general dividing into tissue-based and the methods of prosthetic. One major problem of tissue based repairs has been tension amount that related to the most of them that is a significant factor implicated in recurrence [13]. Various techniques were utilized to reduce postoperative problems or complications and the recurrence. In our current study the comparison was between darning repair and mesh repair. We have reported recurrence, in current study, in two various technique repair types. The recurrence was (1.7%) in Lichtenstein repair and (4.34%) in repair darn type. The recurrence rates were higher, in current study, that may be because it needs more surgery time, there are more probability for injury to blood vessels and ilio-inguinal nerve that located in area of injury called ilio-inguinal nerve in contrast to repair of Lichtenstein type. These results also agree with other works and studies [14-16]. Seroma and hematoma occurred in a small number of patients in both repair kinds, this is because in this study utilized the drain in most of patient.

Lichtenstein mesh repair is a promising procedure in comparison to other techniques. So, the mesh repair represents a good alternative to the old standard darning technique in primary inguinal hernial repair.

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