CODEN [USA]: IAJPBB ISSN : 2349-7750

INDO AMERICAN JOURNAL OF
PHARMACEUTICAL SCIENCES
SJIF Impact Factor: 7.187

Avalable online at: http://www.iajps.com *Research Article*

THE OUTCOME OF A DOUBLE MESH INTRA PERITONEAL REPAIR FOR COMPLEX CENTRAL HERNIA

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Article Received: November 2020 **Accepted:** December 2020 **Published:** January 2021

Abstract:

Objective: *Results of a double mesh repair, intra peritoneal to settle complex central hernia.*

Study Design: *Retrospective cohort study*

Place and Duration of Study: *This study was conducted at the Hamdard University Hospital, Karachi from January 2018 to January 2019.*

Materials and Methods: *We collected the data from records which were already collected in the last two years, n=110 patients. All patients who presented with ventral hernia were included in this study including, both male and female patients. The age ranged between twenty to seventy years. Pregnant women, bleeding disorders were excluded from the study.*

Results: *68 female and 42 male patient data was analyzed, and male female ratio remained 1:1:6. The mean age was 44.82 ±6.29 years. Male age range was slightly higher >50 years, then the female less than 50 years. Mean BMI was > 30kg/m2. 30 patients reported recurrent ventral hernia that is 27.2 percent of the study population. Multiple comorbidities were associated. The n=22 (20%) patients reported with surgical site wound infections which resolved on follow up. No mortality was reported in our enrolled cases.*

Conclusion: *Double mesh repair is an important an effective method of surgical repair and recurrence rate of post-operative complications is found to be lower in this method.*

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Please cite this article in press Muhammad Abu Bakar et al, ***The Outcome Of A Double Mesh Intra Peritoneal Repair For Complex Central Hernia.,*** *Indo Am. J. P. Sci, 2021; 08(1).*

INTRODUCTION:

Complex ventral hernias represent 11-23% of all laparotomies in the US with around 250000, biting the dust to a difficult surgical dilemma [1-5]. Expanding frequency has been accounted for in the US just as in numerous new examinations particularly among old, hefty patients going through laparotomies [5-10]. This expanding trouble impacts the quality of life, mental and social parts of life. In Pakistan, the event of Complex ventral hernias is 4.25% as per one investigation in 2016 [6].

Complex ventral hernias as a rule incorporate recurrent hernias, related enteric fistulas, tainted mesh repairs, parastomal hernias, open injuries, enormous and gigantic hernias [11,12].

Around 10% incisional hernias after laparotomies offer ascent to these stomach divider deformities and in this manner reoperations [13,14]. These days around 20-27% laparoscopic approach is liked anyway the surgical strategy for repair is the preoperative choice of surgeon [15,16]. Diverse different components like history of past surgery, injury, diseases, any innate imperfections additionally influence and further it is influenced by the size, area, profundity and encompassing territory condition which decides the advancement of ventral hernias.

Some time ago the administration of ventral hernias included essential closure of fascial deserts. This is the foundation of treatment with improved paces of repeat from the utilization of tendon free mesh repair which is standard of repair technique [17-18]. A few examinations have indicated a decrease in repeat rates after mesh arrangement to 1-14% [19-20]. In any case, the result of double mesh repair is subject to the patient's comorbid, stomach divider thickness and number of medical procedures performed. Blair et al in 2015 revealed 60.3% of patients with recurrent ventral hernias with panniculectomy performed in34.4% and part separation acted in 24%, injury complications in 13.3% [12]. Tagar et al have noticed more complications with inlay mesh repair contrasted with sub lay mesh repair I-e: 8.5%. 4.25% injury infections [6]. The point of our investigation was to decide the result of a double mesh intraperitoneal repair for complex ventral hernia in our arrangement.

MATERIALS AND METHODS:

This investigation was a review concentrate in the establishment of Hamdard University Hospital, Karachi from March 2018 to February 2019. The data has been gathered from past records for a time of a long time from January 2016 to January 2018. There was n=110 patients joined up with the examination keeping pervasiveness of20%. All the patients with ventral hernias were incorporated from age of more prominent than 20-70 years with the two genders included. The double mesh intraperitoneal repair was undertaken. The patients who were prohibited to be included in the study were ladies with pregnancy, draining issues.

Both the open and laparoscopic technique were utilized. The strategy to be utilized was chosen by specialist preoperatively via figured tomography and related comorbid conditions. Intraperitoneal double mesh was put in outside sideways sash in open surgical technique, be that as it may, in patients with laparoscopic repair strategy is utilized mesh is put intraperitoneally. A few specialists raise a fold of peritoneum and spot the mesh and cause the end of peritoneum over the mesh. Be that as it may, this methodology isn't utilized by all specialists. Patients were followed for postoperative injury contaminations.

RESULTS:

Out of 110 patients selected there were 42 male and 68 females. Male to female proportion was 1:1.6. the mean age of the patient was 44.82 ±6.29years (table 1). Generally, the age scope of patients was >50yrs in men and in women <50yrs. The mean BMI of patients were > 30kg/m2.

There were 30 (27.2%) patients detailed with recurrent ventral hernias with related various comorbidities (Table 2). Generally, the reason for recurrent hernia was debilitated abdominal wall after various medical procedures, particularly among ladies were rehashed cesarean areas in multigravida giving an incisional hernia and related corpulence BMI of >34kg/m2. While in male there was the expanding recurrence of smoking and persistent obstructive aviation route infection and ongoing hack which expanded shortcoming of the abdominal wall.

The mesh repair was finished with polypropylene put intraperitoneally. Around 22 (20%) patients detailed with surgical site wound diseases which settled on development. No mortality was accounted for in our enlisted cases.

Table No. 1: Demographic variables with frequency

Demographic variables	Frequency n=110
Age in years	44.82 ±6.29years
Gender Male: female	42: 68 1:1.6

Table 2: Postoperative complications with frequency and percentage

Postoperative complications	Frequency (percentages) n=110
1. Wound infections	**22(20%)**
2. Recurrence of ventral hernia	**30(27.20%)**

DISCUSSION:

Around 11-20% incisional hernias have been accounted for after laparotomy entry points worldwide [19-21]. In our investigation, there were 30 (27.2%) patients announced with a recurrent hernia. Ventral hernias create because of imperfection in abdominal wall muscles and along these lines incorporate generally incisional hernias. They are the drawn-out complications of abdominal medical procedures. after laparotomies yet additionally essential ventral hernias like umbilical hernias and epigastric hernias. Around half create in 1-2yrs of essential medical procedures and after 3yrs, 74% are reported [22]. A few investigations have revealed after essential stitch repair repeat pace of half which has been decreased after mesh repair [19-22].

Double mesh repair is a surgical method utilized to diminish the occurrence of recurrent ventral hernias. Distinctive reparative procedures have various results. A few investigations uphold double layer, while others report on lay mesh repair to have diminished repeat rates [10,11]. Tolerant repeat is influenced by related danger factors [7-9].

In our investigation, the mean age of patients was a very long time with female prevalence in the improvement of ventral hernias contrasted with male. Studies have additionally found around comparative outcomes anyway sexual orientation contrasts were variable. Afifi et all in his single-focus review examination in 2018 discovered expanding occurrence in females 3.5:1 with the average age around 49 ±1.24yrs1 mean BMI was additionally in a fat reach around 33.6. In any case, Tagar et al have detailed around 64.8% expanded recurrence in male contrasted with females with an average age of 41years [5].

In our investigation, there were 27.2% of cases announced with recurrent ventral hernias with related comorbidities. The surgical site contaminations were found in 20% cases which settled after shut follow-down. Afifi et al revealed 57% patient recurrent ventral hernias with related comorbidities found in 63% patients. Postoperative complications revealed in 38% of cases.

CONCLUSION:

Double mesh repair is an important an effective method of surgical repair and recurrence rate of post-operative complications is found to be lower in this method.

Conflict of Interest: The study has no conflict of interest to declare by any author.

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