

# Analysis of Complications in Hernia Patients after Surgical Treatment in Emergency

IRFAN FAZAL, IFRAHA ABBAS, ALEESHA MUSHTAQ

Department of Surgery, Mayo Hospital, Lahore

Correspondence to Dr. Irfan Fazal Email: dociff343@gmail.com Cell: 03374865645

## ABSTRACT

**Aim:** To study the complications after surgical treatment of Hernia in emergency

**Methods:** We analyzed different types of hernia, including but not limited to inguinal hernia, umbilical hernia and incisional hernia, operated on an emergency basis during a 1-year period (01/06/17 to 30/05/2018). A total of 204 patients with non-reducible hernia were evaluated.

**Results:** According to types of hernia, 119 (58.3%) cases had inguinal hernia, 63 (30.9%) cases had umbilical hernia, 18(8.8%) cases had incisional hernia and 4(2%) cases had miscellaneous hernias. The hernias recurred in 7(3.4%) of the cases in which the 2 cases had recurrence in 1 month, 3 cases in 6 months and 2 cases had recurrence in 12 months. Among cases who had recurrence of hernia, there were 3(42.9%) cases of 40-60 years old, 4 (57.1%) cases were of the 60-80 years age group. All recurrences were in males, while 3(42.9%) cases had complications and 4(57.1%) cases had no complications. Moreover, out of the 7 cases, 4(57.1%) had inguinal hernia, 2 (28.6%) had umbilical hernia and 1(14.3%) cases had incisional hernia.

**Conclusion:** Overall, there was no statistical association of recurrences of hernia with age groups, gender (though all were male), complications and types of hernia.

**Keywords:** inguinal, fascia, incisional, umbilical

---

## INTRODUCTION

A hernia is a bulge that occurs when a fatty tissue or an internal organ busts through a weak spot in the protective layer of tissue and muscle called fascia. There are several types of hernia but the most common types are: inguinal (inner groin), incisional (resulting from an incision), femoral (outer groin), umbilical (belly button), and hiatal (upper stomach).

In an inguinal hernia, the intestine or the bladder protrudes through the abdominal wall or into the inguinal canal in the groin. About 96% of all groin hernias are inguinal, and most occur in men because of a natural weakness in this area. In an incisional hernia small intestine pushes through the abdominal wall at the site of previous abdominal surgery. It usually occurs in overweight or older patients after surgery.

In a femoral hernia a sac of peritoneum protrudes through the femoral ring into the femoral canal. The sac may contain peritoneal fat, omentum, small bowel or structures. In an umbilical hernia a part of the small intestine passes through the abdominal wall around the umbilicus. It usually occurs in children or obese women or women with history of multiple cesarean sections.

In a hiatal hernia upper part of stomach squeezes through hiatus which is an opening into the diaphragm through which the esophagus passes.

The primary cause of hernia is often a combination of strain and weak muscles. Due to the pressure, an internal organ or tissue pushes itself through the weak muscle. The weakness of the muscles is most of the times an occurrence later in life. Although in some cases, the muscle is weak since birth. To put it concisely, anything causing strain in the abdominal wall can lead to hernia, such as:

heavy lifting, digestive problems like constipation or diarrhea or chronic coughing. The risk of having a hernia increases with obesity, smoking and persistent coughing.

The most frequent symptoms observed in hernia patients often include pain in the affected location which increases with lifting weights, acute coughing and bending. There can be other symptoms as well such as chest pain, acid reflux and problem in swallowing food. There are several treatment options for Hernia including lifestyle changes, medication and surgery. In cases where medication is not as effective, surgical treatment is often advised. For this study, we focused only on the Hernias being treated via surgery.

We collected the data of the Hernia patients being operated on in the Surgical Outpatient/Emergency Dept. of Mayo Hospital Lahore over a period of one year and analyzed the operative findings in terms of the reoccurrence or complications of the condition. The objective was to study the complications after surgical treatment of Hernia in emergency.

## MATERIAL AND METHODS

This retrospective observational audit study was conducted in the Department of Surgery, Mayo Hospital, Lahore from 01/06/17 to 30/05/2018. This research was approved by the Ethical Committee of the institute. Data was collected from the hernia patients via a form. Only patients which required surgical treatment of hernia were included in the study.

## RESULTS

According to types of hernia, 119 (58.3%) cases had inguinal hernia, 63 (30.9%) cases had umbilical hernia,

Received on 12-08-2018

Accepted on 10-11-2018

18(8.8%) cases had incisional hernia and 4(2%) cases had miscellaneous hernias.

Table 1: Age Statistics of Patients

Mean	55.10
S.D	13.03
Minimum	17.00
Maximum	85.00
Range	68.00

Table 2: Frequency Distribution of Age, Gender, Complications and Types of Hernia

	Frequency	%age
<b>Age in years</b>		
17-40	21	10.3
40-60	103	50.5
60-80	72	35.3
>80	8	3.9
<b>Gender</b>		
Male	173	84.8
Female	31	15.2
<b>Complications</b>		
Yes	62	30.4
No	142	69.6
<b>Types of hernias</b>		
Inguinal hernia	119	58.3
Umbilical hernia	63	30.9
Incisional hernia	18	8.8
Miscellaneous hernias	4	2

Table 3: Recurrence of Hernia versus Age, Gender, Complications and Types of Hernia

	Recurrence	
	Yes	No
<b>Age groups (years) (P value=0.553)</b>		
17-40	0(0%)	21(10.7%)
40-60	3(42.9%)	100(50.8%)
60-80	4(57.1%)	68(34.5%)
> 80	0(0%)	8(4.1%)
<b>Gender (P value=0.254)</b>		
Male	7(100.0%)	166(84.3%)
Female	0(0%)	31(15.7%)
<b>Any complications (P value=0.446)</b>		
Yes	3(42.9%)	59(29.9%)
No	4(57.1%)	138(70.1%)
<b>Types of hernia (P value=0.940)</b>		
Inguinal hernia	4(57.1%)	115(58.4%)
Umbilical hernia	2(28.6%)	61(31.0%)
Incisional hernia	1(14.3%)	17(8.6%)
Miscellaneous hernia	0(0%)	4(2.0%)

The hernias recurred in 7 (3.4%) of the cases in which the 2 cases had recurrence in 1 month, 3 cases in 6 months and 2 cases had recurrence in 12 months. Among cases who had recurrence of hernia, there were 3(42.9%) cases

of 40-60 years old, 4(57.1%) cases were of the 60-80 years age group. All recurrences were in males, while 3(42.9%) cases had complications and 4(57.1%) cases had no complications. Moreover, out of the 7 cases, 4(57.1%) had inguinal hernia, 2(28.6%) had umbilical hernia and 1(14.3%) cases had incisional hernia.

## CONCLUSION

The study shows that the most common type of abdominal wall hernia was Inguinal Hernia. Inguinal Hernia was also the predominant type in the recurrences, with four out of the seven cases reported. All of the hernias occurred in the patients over the age of forty. The recurrences occurred over a period of one year. Out of the seven cases of recurrence, three patients had complications. Overall, there was no statistical association of recurrences of hernia with age groups, gender (though all were male), complications and types of hernia.

## REFERENCES

1. Silen, W. (2004). Inguinal and incisional hernias. *The Lancet*, 363(9402), pp.83-84.
2. Palmqvist E, Larsson K, Anell A, Hjalmarsson C. Prospective study of pain, quality of life and the economic impact of open inguinal hernia repair. *British Journal of Surgery*. 2013;100(11):1483-1488. doi:10.1002/bjs.9232
3. Venclauskas L, Maleckas A, Kiudelis M. One-year follow-up after incisional hernia treatment: results of a prospective randomized study. *Hernia*. 2010;14(6):575-582. doi:10.1007/s10029-010-0686-8
4. Venclauskas L, Šilanskaitė J, Kanišauskaitė J, Kiudelis M. Long-term results of incisional hernia treatment. *Medicina (B Aires)*. 2007;43(11):855. doi:10.3390/medicina43110110
5. Gopal S, Warriar A. Recurrence after groin hernia repair-revisited. *International Journal of Surgery*. 2013;11(5):374-377. doi:10.1016/j.ijssu.2013.03.012
6. Rehman S, Khan S, Pervaiz A, Perry E. Recurrence of inguinal herniae following removal of infected prosthetic meshes: a review of the literature. *Hernia*. 2011;16(2):123-126. doi:10.1007/s10029-011-0873-2
7. Taylor E, Dewar E. Early return to work after repair of a unilateral inguinal hernia. *British Journal of Surgery*. 1983;70(10):599-600. doi:10.1002/bjs.1800701010
8. Vidović D, Jurišić D, Franjić B, Glavan E, Ledinsky M, Bekavac-Bešlin M. Factors affecting recurrence after incisional hernia repair. *Hernia*. 2006;10(4):322-325. doi:10.1007/s10029-006-0097-z
9. Sauerland S, Korenkov M, Kleinen T, Arndt M, Paul A. Obesity is a risk factor for recurrence after incisional hernia repair. *Hernia*. 2004;8(1):42-46. doi:10.1007/s10029-003-0161-x
10. Pokorny H, Klingler A, Schmid T et al. Recurrence and complications after laparoscopic versus open inguinal hernia repair: results of a prospective randomized multicenter trial. *Hernia*. 2008;12(4):385-389. doi:10.1007/s10029-008-0357-