



COMPLICATED INGUINAL HERNIA -WORST NIGHTMARE OF GENERAL SURGEON (STUDY OF 50 CASES)

General Surgery

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ABSTRACT

Background: A very common surgical condition, Inguinal hernia, when becomes complicated poses a great threat to life of the patient and carries significant morbidities associated with its managements as compared to simple hernia.

Aim: To study incidence of complicated inguinal hernia and its management and associated morbidities and mortality.

Methods: Total of 50 patients with complicated inguinal hernias were included in study during period of 2018 to 2020.

Conclusion: From this study it is evident that irreducible inguinal hernia, if not taken care of timely, can progress to obstruction and strangulation rapidly and poses a great risk to outcome as well as patient's life.

KEYWORDS

INTRODUCTION

An inguinal hernia, whether direct or indirect, is one of the most common encountered condition in routine surgical practice. Uncomplicated hernia poses very minimal risk to patients' life because of its straight forward management and many advances in repair of hernia. Indirect hernia is more vulnerable to complication than direct hernia such as irreducibility, obstruction, strangulation and incarceration. Management of complicated hernia differs from that of uncomplicated hernia. This study was carried out to describe presentation and management of such patients.

METHODOLOGY

The study was conducted among 50 patients who were admitted in Department of General Surgery, G. G. Government Hospital, Jamnagar during the period of 2018-2020.

Following criteria were taken in consideration for the study:

- INCLUSION CRITERIA:** (Patient presenting with)
 - Lower abdominal pain and inguinoscrotal pain
 - Associated with multiple episodes of vomiting
 - Swelling over inguinal/inguinoscrotal region
 - Fever
 - Exaggeration of pain on heavy exercise and straining
 - Associated with abdominal distension, constipation.
- EXCLUSION CRITERIA:**
 - As such there is no exclusion criteria but patients with uncorrected coagulopathies are excluded from the study.

RESULTS

In this study of 50 patients, maximum number of patients (22) was in group of 41-60 years of age making 44%. Then in age group of 61-80 years of age making 38% and in age group of 21-40 years of age making 18%. There were no patients of age less than 20 or more than 80.

In this study pain and irreducible swelling was a presenting symptom in almost all the patients, this is because the occurrence of pain makes the patient to seek medical advice and all such irreducible hernias will have some element of pain associated with swelling. As 22% of the patient in this study had obstruction at the time of presentation, nausea, vomiting, constipation and abdominal distension was other common complain.

Table-1 Symptomatology

Findings	No of patients	Percentage
Pain	49	98
Irreducible swelling	50	100
Nausea	26	52
Vomiting	26	52
Constipation	10	20
Abdominal distension	10	20

In the present study majority (78%) of patients presented with irreducible hernia. 4% of the patients had a strangulated hernia; these findings suggest painful, irreducible swelling is one of the presenting symptoms, thus preventing other complications in hernia by timely surgical intervention.

In this study most of the patients (52%) had left inguinoscrotal swelling which proves the fact that left side hernias are more common. 36% patients had right sided inguinal hernia and 12% patients had bilateral inguinal hernia.

Table-2 Content Of Sac

Type	No. of patients	Percentage
Omentum	26	52
Small bowel	24	48

In this study out of 50 patients in 24 patients (48%) content of sac was small bowel (enterocecele) and in 26 patients (52%) content was omentum (omentocoele).

Table-3 Status Of Content

Condition of content	No of patient	Percentage
Viable bowel	22	44
Nonviable bowel	2	4
Viable Omentum	25	50
Nonviable Omentum	1	2

In this study all the patients underwent surgical exploration in which most of the patients (50%) had viable omentum and in (2%) of patients omentum was not viable for which omentectomy was done. Another 44% patients had viable bowel whereas 4% patients had non-viable bowels for which resection and anastomosis was carried out.

Table-4 Procedure Preformed

Procedure	No. of patients	Percentage
Herniotomy	0	0
Omentectomy with herniorrhaphy	1	2
Resection and anastomosis with herniorrhaphy	2	4
Meshplasty	47	94
Omentectomy with meshplasty	0	0
Resection and anastomosis with meshplasty	0	0

Out of 50 patients in 47 patients (94%) meshplasty was done. In 1 patient omentectomy with herniorrhaphy was done. In 2 patients (4%), resection and anastomosis of small bowel with herniorrhaphy was done as bowel was non-viable. As in this type of procedure, chances of wound infection are very high mesh was not inserted.

In the study 48 patient (96%) negative suction drain was kept while in 2 patient (4%), drain was not kept, when on table hemostasis was good

and there was less tissue dissection, drain was not kept otherwise wound was drained with negative suction drain which was taken out from separate stab incision.

Table-5 Postop Hospital Stay

Duration	No. of patients	Percentage
< 4 days	6	12
5-8 days	36	72
9-12 days	6	12
>12 days	2	4

In this study, most of the patients (72%) were discharged from ward in approximately 5 to 8 days. 12% of patients were discharged in 9-12 days. 12% patients were discharged in less than 4 days whereas 4% patients were stayed in ward for more than 12 days.

In this study all patient were followed and examined at 15 days. 1 month, 3 months, 6 months interval for condition of local scar, recurrence and any local complains. There was no recurrence of hernia in this study.

DISCUSSION

In the study although age of the patient was not one of the criteria of selection, most of the patients 44% were of middle age (41-60 years) and 38% patient of 61-80 years of age while 18% of patients were age of 21-40 years. Due to the active life style, inguinal hernia is more common in middle age group which can progress to complication later on as seen in present study.

From the study it is evident that a painful irreducible swelling was the chief complain of most of the patients. While few patients presented with signs and symptoms of obstruction and strangulation. Most of the time a hernia tends to undergoes complications when it is of a large size and if such a swelling is associated with pain, then even those patients, who ignore swelling, seek medical advice for pain. Thus, painful irreducible inguinoscrotal swelling warrants a careful scrutiny and management to prevent further complications.

In our study 39(78%) patients had irreducible inguinal hernia, 2(4%) patients had strangulated inguinal hernia and 9(18%) patients had obstructed inguinal hernia.

In our study 26 patients (52%) had left inguinoscrotal swelling whereas 18(36%) patients had right inguinoscrotal swelling and 6 (12%) patients had bilateral inguinal hernias.

In this study out of 50 patients in 24 patients (48%) content of sac was small bowel (enterocele) and in 26 patients (52%) content was omentum (omentocoele).

In this study all the patients underwent surgical exploration in which most of the patients (50%) had viable omentum and in (2%) of patients omentum was not viable for which omentectomy was done. Another 44% patients had viable bowel whereas 4% patients had non-viable bowels for which resection and anastomosis was carried out.

Out of 50 patients in 47 patients (94%) meshplasty was done. In 1 patient omentectomy with herniorrhaphy was done. In 2 patients (4%), resection and anastomosis of small bowel with herniorrhaphy was done as bowel was non -viable. As in this type of procedure, chances of wound infection are very high mesh was not inserted. In the study, in 48 patient (96%) negative suction drain was kept while in 2 patients (4%), drain was not kept.

In 42 cases (84%) postoperative recovery was uneventful. In 2% patient induration of wound was seen so antibiotics were continued. In 2% seroma developed which was aspirated and antibiotics were continued. In 14% of patients stitch line was infected for which sterile dressing was done for some days and treated with dressing and antibiotics.

CONCLUSION

From our study it is concluded that most patients of complicated inguinal hernias have painful irreducible inguinoscrotal swellings; most of which had uncomplicated inguinal hernia which was not taken care of timely and ultimately progressed to complicated inguinal hernia. Patient of irreducible hernias have thus to be clinically examined for signs of obstruction and strangulation, they need to be

resuscitated, investigated properly (more importantly with x-rays abdomen standing/lying down and ultrasonography) and must be prepared for emergency surgical intervention, otherwise with each passing moment the bowel or omentum present in the sac can undergo obstruction, strangulation and/or perforation. From our study it is evident that In all of these patients the level of obstruction was at deep inguinal ring. In such patients, timely operative procedure is of paramount importance and in this modern era of efficient surgical care, intravenous fluid therapy, antisepsis and broad-spectrum antibiotics efficient herniorrhaphy can be done with appropriate meshplasty provided that there is no signs of strangulation or infection. Only in 2 case resection of bowel was done; meshplasty was not advocated due to risk of infection and rejection of the mesh.

In the present study, infection rate is 14%, morbidity rate is 18% and mortality rate is 0% but these figures are probably not indicative of the true incidence of post-operative complications in the management of complication hernias, after taking into consideration the small number of patients studied. No patients had recurrence of hernia or local wound complication in subsequent follow up period. However more such detailed studies and trials are required to effectively reduce the mortality and morbidity rates that are seen in the present study in our set up.

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