# TRAUMATIC LUMBAR HERNIA – A SERIES OF 3 CASES


**Dr Devi Shanker Malik** Director - General & Laparoscopic Surgery
**Dr B S Dhakad** SMO - General & Laparoscopic Surgery
**Dr Mahipal Singh** Associate Director & HOD - Radiology
**Dr Nisha Aurora** Sr. Consultant – Radiology

**ETERNAL HOSPITAL, JAIPUR (INDIA)**


## AIMS & OBJECTIVE

- Very rare
- Because of rarity and obscured anatomy, it is very difficult to diagnose and manage.
- So the aim of the study is to study about the incidence, aetiology, symptomatology and management of Traumatic Lumbar Hernia.


## KEYWORDS

Lumbar Hernia, Traumatic Lumbar Hernia, Superior Lumbar Hernia, Inferior Lumbar Hernia, Blunt Abdominal Trauma.


## INTRODUCTION

- Lumbar Hernias are quite uncommon hernias constituting less than 1.5% of all abdominal wall hernias with fewer than 300 cases have been reported in last 300 years.
- Lumber hernias appear through defects in lumbar muscles or post. fascia below 12th rib and above iliac crest.
- Traumatic Lumbar hernias are still rarer and constitute about 25% of all Lumbar Hernias. Only 66 cases of traumatic Lumbar Hernias have been reported so far in literature.
- The most common cause of Traumatic Lumbar Hernia is blunt abdominal trauma associated with crush injuries or vehicular accidents (71%). Traumatic Lumbar Hernias presents most commonly through the Inferior Lumbar triangle or Triangle of Pettit (70%).
- It does not include incisional hernia
- In the normal course of events after blunt abdominal trauma, the brunt of injury is borne by intra-abdominal organs, and the musculature is spared.
- However, at times, the shearing forces sustained during trauma may be transmitted in such a way so as to cause disruption of the abdominal musculature with subsequent herniation at the site.
- Traumatic Lumbar hernias appears due to sudden application of blunt force to the abdomen
- Site of injury does not correspond to the site of impact

## CLASSIFICATION

- Based on Etiology

A –CONGENITAL
B – ACQUIRED
PRIMARY - Spontaneous
SECONDARY - Post Traumatic
- Post Surgical Lesions
- Post Inflammatory Lesions

- Based on Anatomy

SUPERIOR LUMBAR HERNIA – passes through Superior Lumbar Triangle (grynfeltt - lesshaft) which is

BOUNDED ABOVE – By Twelfth Rib – forming base of the triangle
ANTERIORLY- By Post Border of Internal Oblique
POSTERIORLY- By Erector Spinae & Quadratus Lumborum Muscles

INFERIOR LUMBAR HERNIA – Passes through inferior lumbar triangle (PETTIT's) through Inferior Lumbar Triangle (PETTIT'S) which is bounded

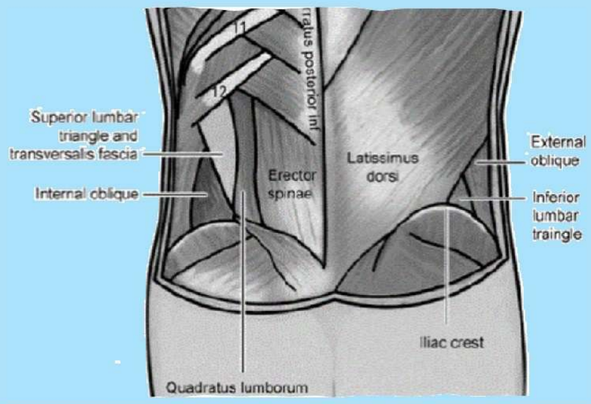
POSTERIORLY- By Lateral Border Of Latissimus Dorsi
ANTERIORLY- By Posterior Free Border Of External Oblique Muscle
BELOW – By Iliac Crest Forming Base Of Triangle

## DIFFUSE LUMBAR HERNIA

Does Not Appear Specifically Through The Superior Or The Inferior Lumbar Triangle But May Appear Any Where In The Lumbar Region

- Based on Contents of the Hernial Sac

EXTRA PERITONEAL- Containing No Peritonium
PARA PERITONEAL– Viscera passing through the defect with Peritonium adherent to muscles.
INTRA-PERITONEAL- Complete Peritoneal Sac Herniating through the defect.




## INCIDENCE

LUMBAR HERNIA
- 1.5% of all abdominal hernias.
- Less than 300 cases reported in past 300 years

- CONGENITAL - 20%
- ACQUIRED - 80% (PRIMARY - 55% SECONDARY - 25%)

## HERNIA CONTENTS

- STOMACH
- SMALL BOWEL
- LARGE BOWEL
- MESENTRY
- OMENTUM
- OVARY
- SPLEEN
- KIDNEY

## COMPLICATION

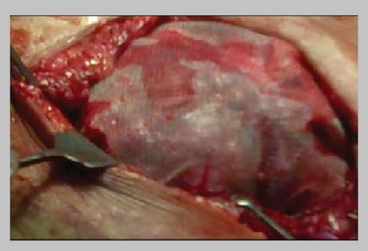
- Ireducibilty
- Incarceration - 25%
- Strangulation - 10%

## METHODS

- A study of 3 cases of Traumatic Lumbar hernias operated by a single surgeon in last 10 years is being presented here.
- All the three cases were diagnosed a bit late, about 4-5 months after the initial injury, during the recovery period.
- Two of them had vehicular accident while one fell from the roof of her house from 1st story.
- All the three cases were repaired with open hernioplasty using a soft prolene mesh.

## CASE #1

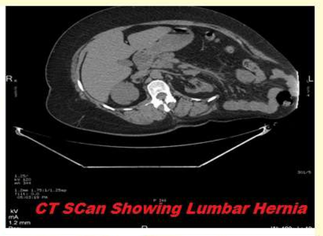
69 years old female patient
- Presented with gradually increasing, painless reducible swelling in left lumbar region for last 5 months.
- Fell from 1st floor; sustained vertebral injuries & hematoma abdominal wall left side
- Managed conservatively. Post-recovery noticed swelling
- Diagnosis - Traumatic Lumbar Hernia
- Underwent open Left Lumbar Hernioplasty



Operative photograph

## CASE #2

57 years old female patient
- Presented with huge, gradually increasing, reducible swelling in left lumbar region for last 2.5 years
- Met with accident in 2011 with bony injuries in pelvis
- Managed conservatively. Post-recovery noticed swelling
- Diagnosis - Traumatic Lumbar Hernia
- Underwent open Left Lumbar Hernioplasty




## CASE #3

36 years old male patient
- Presented with gradually increasing, reducible swelling in left Lumbar region
- Met with a accident 2 years back, had multiple organ and bony injuries – managed accordingly
- During recovery period after about 4-5 months, noticed a gradually increasing swelling in left Lumbar region
- Diagnosis - Traumatic Lumbar Hernia
- underwent Open left Lumbar Hernioplasty


## FOLLOW UP

Weekly for first month and then monthly for one year

## CONCLUSION

- Traumatic Lumbar Hernia is a relatively very rare type of abdominal wall hernia which appears after a sever blunt injury abdomen.
- This should always be kept in differential diagnosis of any swelling developing in Lumbar region post blunt trauma abdomen.
- CECT abdomen should always be done to confirm the diagnosis, and this also allows the diagnosis of other abdominal organ injuries. CT is 98% sensitive for diagnosis.
- Operative treatment, open or laparoscopic is the treatment of choice.

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