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.
- Lumbar 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 Petitti (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 (gynfelt - lesshaft) which is
  BOUNDED ABOVE - By Twelfth Rib - forming base of the triangle
  ANTERIORLY - By Posterior Border of Internal Oblique
  POSTERIORLY - By Erector Spinae & Quadratus Lumborum Muscles
  INFERNOR LUMBAR HERNIA - Passes through inferior lumbar triangle (PETITI'S) through Inferior Lumbar Triangle (PETITI'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

- 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
- MESENTERY
- OMENTUM
- OVARY
- SPLEEN
- KIDNEY

COMPLICATION

- I Reductibility
- 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 3rd floor; sustained vertebral injuries & hematoma abdominal wall left side
- Managed conservatively. Post-recovery noticed swelling
- Diagnosis - Traumatic Lumbar Hernia
- Underwent open Left Lumbar Hernioplasty

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 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
- under went 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 severe 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.

REFERENCES