Pantaloon Hernia in a Female: A Rare Finding

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ABSTRACT

The incidence of inguinal hernia in females is less compared to the males. Pantaloon hernia in females is even rarer and may be first diagnosed during surgery. We report a rare case of pantaloon hernia in a 60 year old female patient. She presented with reducible left groin swelling of 3 years duration and a clinical diagnosis of an indirect inguinal hernia made. A direct sac and an indirect sac were discovered at operation on both sides of the inferior epigastric artery. The posterior wall was repaired by Lichtenstein method. Patient made an uneventful recovery and there was no recurrence after 12 months of follow up. Though pantaloon hernia is rare in females, proper dissection, and identification of structure in the inguinal canal is necessary to make the correct diagnosis and to offer the appropriate treatment.

Keywords: Female, Hernia, Lichtenstein Repair, Pantaloon.

I. INTRODUCTION

An inguinal hernia is a protrusion of abdominal cavity contents through the inguinal canal [1]. Inguinal hernias are often classified as direct or indirect, depending on whether the hernia sac bulges directly through the posterior wall of the inguinal canal (direct hernia) or passes through the internal inguinal ring alongside the spermatic cord or round ligament, following the course of the inguinal canal (indirect hernia) [2].

Inguinal hernias account for 75% of abdominal wall hernias, with a lifetime risk of 27% in men and 3% in women [3]. Incidence of inguinal hernia is more in males as compared to females with a male to female ratio of 6:1 [4]. Although femoral hernias are less common than inguinal hernias and occur more frequently in the females, indirect inguinal hernia is still the most common type of hernia in women [5].

A direct hernia, however, is rare in females because of the strong transversus abdominis muscle and it has an incidence of 3-14% [6], [7]. Pantaloon hernia is a very rare variety of an inguinal hernia where both the direct and indirect hernias exist on either side of the inferior epigastric artery [8]. Pantaloon hernias have an incidence of 1.8% in females and 5.6% in males [7]. We hereby present a case of left pantaloon hernia in a 60 year old woman.

II. CASE PRESENTATION

A 60 year old female presented with progressively increasing but reducible left groin swelling of 3 years duration. Apart from the occasionally discomfort, there was no gastrointestinal obstructive symptoms. She did not have any comorbidity. On physical examination, her vital signs were within normal range and she had a BMI of 24.2 kg/m². The mass which measured 4×3×2 cm and located in the left...
inguinal region had a visible and palpable cough impulse. It was not tender, soft, and easily reducible with a positive deep ring occlusion test. A diagnosis of left reducible indirect inguinal hernia was made, and patient worked up for mesh hernioplasty. Her hemoglobin was 12 g/dl, urinalysis was normal likewise her serum electrolytes. Results of Chest x-ray and Electrocardiogram done were within normal range.

Intraoperative findings showed both an indirect and direct sac with a weakened posterior wall (Fig. 1).

![Fig. 1. intraoperative picture showing a direct and an indirect sac.](image)

The indirect sac had healthy small bowel as content which was reduced and herniotomy done. The direct sac was invaginated and the posterior wall reinforced with a polypropylene mesh. Patient made an uneventful recovery and was discharged home the next day. She was followed up to 12 months with no evidence of recurrence.

III. DISCUSSION

The failure of obliteration of the processes vaginalis from birth to about 1 year in the female could lead to a potential space, canal of nuck, which may lead to hydrocele formation or indirect inguinal herniation [9]. The posterior wall of the inguinal canal in women is demonstrably a strong structure in most instances as evidenced by the rarity of direct hernias in females, about thirteen times less frequent than the primary indirect type [10]. The transversalis fascia in women is stronger in the floor of the inguinal canal because of the stress of childbearing thereby conferring a protective advantage and making direct hernia unusual [11]. Pantaloon hernias are very rare, even more so in women [8], [12], and has been classified by Nyhus and Gilbertas as Type 3b and Type 6, respectively [13], [14].

Clinically, Pantaloon hernia can be identified by 2 distinct swellings in the inguinal region, each medial and lateral to the inferior epigastric vessels. One of the hernias, however, may be occult and not identified clinically but found intraoperatively like in our case [1].

Though there are no specific recommendations for pantaloon hernia repair [5], [13]; the guidelines by the Hernia Surge group that groin hernia surgery can be done either by open Lichtenstein tension free mesh repair or laparo-endoscopic mesh repair was applied in our patient [5], [15].

IV. CONCLUSION

Though pantaloon hernia is rare in females, proper dissection, and identification of structure in the inguinal canal is necessary to make the correct diagnosis and to offer the appropriate treatment.

CONFLICTS OF INTEREST /COMPETING INTERESTS

The authors declare that they have no competing interest.

CONSENT

A written informed consent for publication of data and pictures was obtained from the patient.

AUTHORS’ CONTRIBUTION STATEMENTS

Both authors prepared the manuscript, conceptualized, and designed the study. All authors read and approved the final manuscript.

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