Case Report

Inguinal Hernia in a Woman: A Rare Clinical Entity – Case Report

Amir Yousaf[1], Raheel Ahmed[2]

[1]Department of Surgery, Govt Mian Meer Hospital, Lahore, Pakistan; [2]Department of Radiology, Govt Mazang Hospital, Lahore, Pakistan

Corresponding Author: ***Dr. Amir Yousaf,*** *Consultant Surgeon, Govt Mian Meer Hospital, Lahore, Pakistan*

Email: *yousafamir@gmail.com*

Abstract

Inguinal hernia in females is not common, and they are misdiagnosed due to atypical presentation and lower clinical suspicion as compared to males. Inguinal hernia usually presents as a groin swelling with or without pain and carries a higher risk of complications such as incarceration or strangulation. Diagnosis is primarily by clinical examination, but may need imaging support when uncertain. Surgical repair remains the definitive treatment, with both open and laparoscopic approaches. Early recognition is very important to prevent unwanted complications, which are more common in women with femoral hernias. This case report presents a patient with a right-sided inguinal hernia. A 44-year old female patient presented in outpatient surgery with a history of a lump in the right groin area for the last few months.

Keywords: Inguinal Hernia, groin swelling, strangulated hernia, open hernia repair, laparoscopic hernia repair

Received: 13-07-2026 Revision: 18-09-2026 Accepted: 25-09-2026

How to cite: Yousaf A, Ahmed R. Inguinal Hernia in a Woman: A Rare Clinical Entity – Case Report. Avicenna J Health Sci. 2026;03(03): 131-134 **Doi:** https://doi.org/10.71158/ajhs.v3i3.232

Introduction

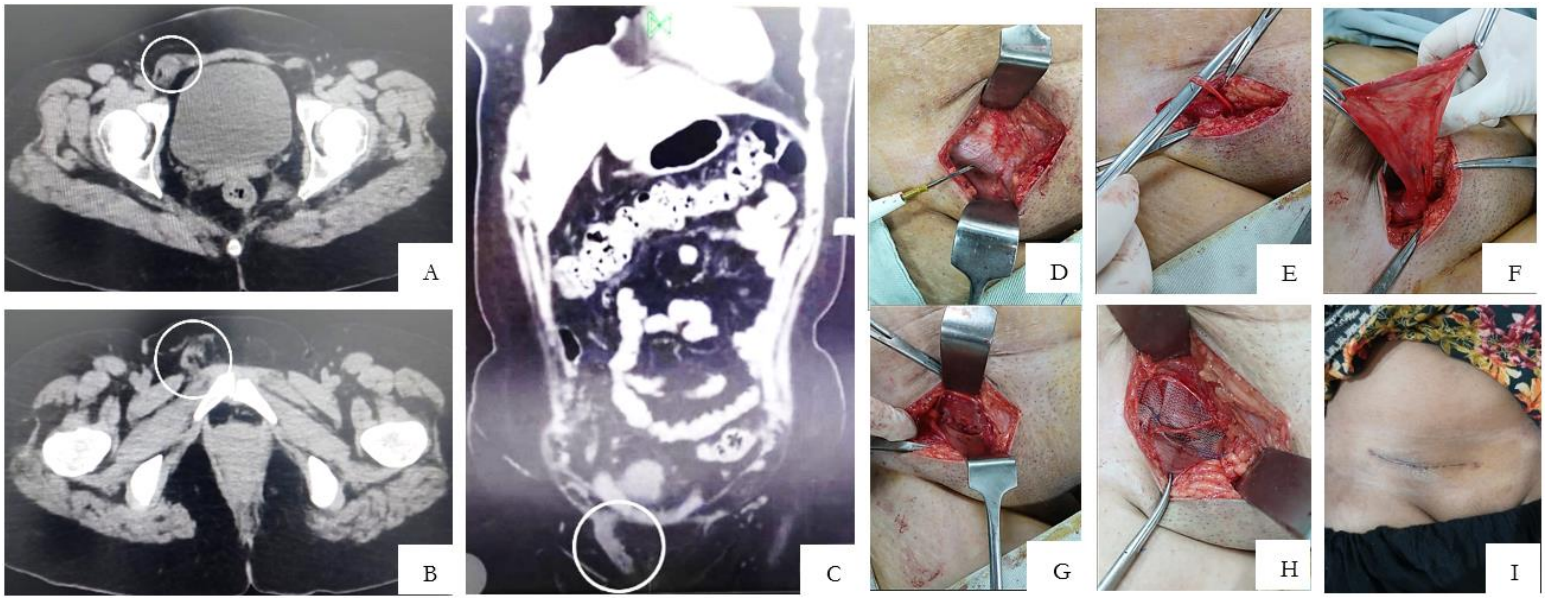
Inguinal hernia is one of the most common conditions in general surgical practice. It is the protrusion of abdominal contents through a weakness in the inguinal canal. Depending on the presentation, it could be direct or indirect, complete or incomplete. Although inguinal hernias predominantly affect males, they also occur in females and pose distinct diagnostic and clinical challenges.[1] In women, these types of hernias are less common but carry a higher risk of complications, like incarceration and even strangulation, this is partly due to atypical presentation[2] and delay in the diagnosis. Therefore, there is a need to create awareness of the anatomical aspects impacting surgical outcomes in a female patient to ensure timely diagnosis and appropriate surgical management.[3,4] Elective repair is generally recommended due to the higher risk of adverse outcomes in women compared to men.[4]

Case Report

The patient was a 44-year old female, a housewife, who was admitted electively, with a several-month history of swelling in the right groin area. As per the patient, the lump has recently become more visible, with slight discomfort. She denied any history of upper or lower gastrointestinal symptoms, no urinary symptoms and no gynaecological issues. The patient was otherwise fit and well with no allergies, but has occasional tension-type headaches, which improved with simple analgesics. Her past surgical history includes three simple vaginal deliveries.

General physical examination revealed that, she was alert, afebrile, and fully oriented in time and space. There was no jaundice, pallor, clubbing, cyanosis, lymphadenopathy or oedema. Her vitals showed respiratory rate 20 bpm, heart rate and blood pressure of 88 bpm and 120/80 mmHg, respectively. The rest of the systems were normal. Examination of the right groin showed soft, non-tender, pear-shaped swelling measuring approximately 2–2.5 cm, which was compressible with a positive cough impulse, and bowel sounds were audible over the mass. With the help of history and clinical examination, the provisional diagnosis was inguinal hernia. Preoperative investigations, which include routine bloods, ECG, Echocardiography and chest radiography, were done through the out-patient department. Ultrasound of the right groin reported a right reducible inguinal hernia containing bowel loops, which was confirmed on a plan CT scan of the pelvis (Figure A-C). With the help of the above investigation the diagnosis was confirmed as a right indirect reducible inguinal hernia. The patient was booked in an elective list for an open hernia repair. On the day of operation, all preoperative safety checks, including fasting status,

site marking and equipment readiness, were completed, and an informed consent form was signed by her. Under spinal anaesthesia, the patient was placed in the supine position and prepared and draped under aseptic conditions. A 5–7 cm oblique inguinal incision was made approximately 2 cm above and parallel to the inguinal ligament. The subcutaneous tissue was dissected to expose the external oblique aponeurosis (Figure D), which was incised in the direction of its fibres to open the inguinal canal. The ilio-inguinal nerve was identified and protected (Figure E). An indirect hernia sac was dissected free from surrounding tissues (Figure F). The posterior wall was plicated with Polypropylene suture 2-0 (Figure G). Haemostasis was secured, and an 11x6 cm polypropylene mesh was placed over the inguinal floor and secured, medially to the pubic tubercle, inferiorly to the inguinal ligament and superiorly to the conjoint tendon, using Lichtenstein tension-free hernioplasty repair technique (Figure H). The external oblique aponeurosis was closed over the mesh, recreating the inguinal canal. Care was taken not to entrap nerves. The subcutaneous tissue was approximated, and the skin was closed by subcuticular technique, using Polypropylene suture 2-0 straight needle (Figure I). In the recovery area, she was haemodynamically stable with a pulse of 85 bpm, blood pressure of 120/80 mmHg and oxygen saturation of 98% on room air. Her pain was controlled, and no anaesthesia-related adverse events were noted. She was shifted to the ward in stable condition after surgery and later discharged the next morning.



Discussion

Inguinal hernias in females constitute a distinct clinical condition compared to those in males, owing to anatomical and epidemiological variations. Although generally less common, women exhibit a greater incidence of femoral hernias and are at increased risk for complications such as incarceration and strangulation[5], which need swift management. In the present case, the hernia was neither incarcerated nor strangulated, yet it was symptomatic for the patient. Contemporary evidence and existing international guidelines emphasize the need for rapid diagnosis and appropriate surgical management for this patient population. The recent guidelines emphasize that groin hernia repair remains one of the most frequently performed surgical procedures worldwide, with over 20 million operations conducted annually.[6] In female patients, there is a significant risk of misdiagnosing a femoral hernia as an inguinal defect, which can influence recurrence rates and patient morbidity. Therefore, a thorough preoperative assessment with or without radiological imaging, such as ultrasound or MRI, is recommended. Although our patient was diagnosed clinically with a right-sided indirect inguinal hernia, which was reducible, had an

ultrasound, but she also underwent a CT scan to confirm the diagnosis. Appropriate selection of the surgical approach is a vital component of patient management. Contemporary evidence strongly supports the use of mesh repairs, as they significantly reduce the likelihood of recurrence without increasing the risk of long-term pain.[7] Both traditional open and minimally invasive procedures are acceptable options; nevertheless, laparoscopic techniques including transabdominal preperitoneal (TAPP) and totally extra peritoneal (TEP) repair are becoming increasingly favoured. These methods provide superior visualization of the femoral canal and aid in the detection of occult femoral hernias, a condition more frequently observed in female patients.[8] Moreover, minimally invasive surgery has been connected to less post-operative pain and quicker recovery compared to open Lichtenstein repair.[9] Standardized guidelines seek to enhance these outcomes by advocating evidence-based surgical techniques and perioper-ative care.[10,11] In this case, the hernia was non-recu-rrent, and the patient was otherwise fit with no significant co-morbidities. Owing to the unavailabi-lity of the necessary equipment, and given that the hernia was not recurrent, an open mesh repair was undertaken. Effective postoperative analgesia contri-buted to an early discharge.

Conclusion

In summary, managing inguinal hernias in women demands a proactive and personalized method. Key principles include early surgical treatment, a preference for mesh-based and minimally invasive techniques, and meticulous intraoperative evaluation for femoral defects. Continuing research and updated guidelines keep advancing patient outcomes, highlighting the significance of gender-specific considerations in hernia surgery.

Conflict of Interest / Disclosure: Nil.

Funding Source: Nil.

Authors' Contribution:

AY: Writing original draft, conceptualization, review & editing, final approval of the version to be published

RA: Writing review & editing, conceptualization, critical review for important intellectual content

References

1. Ma Q, Jing W, Liu X, Liu J, Liu M, Chen J. The global, regional, and national burden and its trends of inguinal, femoral, and abdominal hernia from 1990 to 2019: findings from the 2019 Global Burden of Disease Study- a cross-sectional study. Int J Surg. 2023; 109(3):333-342. Doi: 10.1097/JS9.0000000000000217.
2. Kandemir H, Donmez T, Surek A, Gumusoglu AY, Karabulut M, Canoz O, et al. Risk factors for incarceration in groin hernia: a prospective observational study. Hernia. 2025;29(1):142. Doi: 10.1007/s10029-025-03331-w.
3. Balthazar da Silveira CA, Mazzola Poli de Figueiredo S, Rasador ACD, Dias YM, Hernandez Martin RR, Fernandez MG, Towfigh S. Impact of patient's sex on groin hernia repair: A systematic review and meta-analysis. World J Surg. 2024;48(11):2592-2603. Doi: 10.1002/wjs.12344.
4. Wang F, Ma B, Ma Q, Liu X. Global, regional, and national burden of inguinal, femoral, and abdominal hernias: a systematic analysis of prevalence, incidence, deaths, and DALYs with projections to 2030. Int J Surg. 2024;110(4):1951-1967. Doi: 10.1097/JS9.0000000000001071.
5. Picciochi M, Lee MJ, Pathak S, Banks J, Helliwell JA, Chapman SJ, et al. Operative versus conservative management for inguinal hernia: a methodology scoping review of randomized controlled trials. BJS Open. 2024;8(5):zrae116. Doi: 10.1093/bjsopen/zrae164.
6. Stabilini C, van Veenendaal N, Aasvang E, Agresta F, Aufenacker T, Berrevoet F, et al. Update of the international HerniaSurge guidelines for groin hernia management. BJS Open. 2023;7(5):zrad080. Doi: 10.1093/bjsopen/zrad080. Erratum in: BJS Open. 2024 ;8(2):zrae034. Doi: 10.1093/bjsopen/zrae034.
7. Chu Z, Zheng B, Yan L. Incidence and predictors of chronic pain after inguinal hernia surgery: a systematic review and meta-analysis. Hernia. 2024;28(4):967-987. Doi: 10.1007/s10029-024-02980-7.
8. Brandel DW, Girish G, Brandon CJ, Dong Q, Yablon C, Jamadar DA. Role of Sonography in Clinically Occult Femoral Hernias. J Ultrasound Med. 2016;35(1):121-8. Doi: 10.7863/ultra.15.02061.
9. Silveira CAB, Poli de Figueiredo SM, Dias YJM, Martin RRH, Rasador ACD, Fernandez MG, et al. Transinguinal preperitoneal (TIPP) versus Lichtenstein for inguinal hernia repair: a systematic review and meta-analysis. Hernia. 2023;27(6):1375-1385. Doi: 10.1007/s10029-023-02882-0.

10. Martinez-Nicolas I, Arnal-Velasco D, Romero-García E, Fabregas N, Sanduende Otero Y, Leon I, et al; SAFEST Consortium. Perioperative patient safety recommendations: systematic review of clinical practice guidelines. BJS Open. 2024;8(6):zrae143. Doi: 10.1093/bjsopen/zrae143.

11. Łajczak P, Żerdziński K, Jóźwik K, Laskowski M, Dymek M. Enhancing Precision and Safety in Spinal Surgery: A Comprehensive Review of Robotic Assistance Technologies. World Neurosurg. 2024;191:109-116. Doi: 10.1016/j.wneu.2024.08.051.

This open-access article distributed under the terms of the Creative Commons Attribution License (CC BY 4.0). To view a copy of this license, visit https://creativecommons.org/licenses/by/4.0/