

## Case Report

# A rare case of indirect inguinal hernia with ovary as content at a hospital of Visakhapatnam

Ravi Kiran Nudurupati<sup>1</sup>, Sudha Malini P<sup>2</sup>, Navya Reddy Nallamalapu<sup>3</sup>

From Assistant Professor, <sup>1</sup>Department of General Surgery, GEMS Medical College and Hospital, Srikakulam, <sup>2</sup>Department of Obstetrics and Gynaecology, Andhra Medical College, Visakhapatnam, <sup>3</sup>JR (Intern), GEMS Medical College and Hospital, Srikakulam, Andhra Pradesh, India

**Correspondence to:** Dr. Ravi Kiran Nudurupati, Department of General Surgery, GEMS Medical College and Hospital, Ragolu Village, Srikakulam – 532484, Andhra Pradesh, India. E-mail: [ravikirannudurupati@gmail.com](mailto:ravikirannudurupati@gmail.com)

Received - 10 August 2018

Initial Review - 28 August 2018

Accepted - 16 October 2018

### ABSTRACT

A hernia is the protrusion of the small intestines or omentum or other organs through a defect in the abdominal wall. Inguinal hernia in females is very rare and occurs in <5% of women. Here, we report the case of a 25-year-old female who presented with swelling in the left groin associated with dragging pain in the left iliac fossa. She was investigated and diagnosed as a left indirect inguinal hernia. Hernioplasty was planned and intraoperatively ovary along with fimbria was identified as content. An inguinal ovary may occur if the gubernaculum fails to attach to the uterus in fetal life or if the canal of Nuck remains open after birth.

**Keywords:** *Indirect inguinal hernia, Inguinal ovary, Irreducible hernia, Ovary, Uterus*

A hernia is the protrusion of the small intestines or omentum or other organs through a defect in the abdominal wall [1]. Inguinal hernias occur in <5% of women. Boys are more frequently affected than girls (85% vs. 15%) [2,3]. An ovary within the inguinal canal is occasionally seen in female infants but is rare in adult women. Its like the swelling becomes more prominent when the intra-abdominal pressure raises (coughing, crying, straining, lifting heavy objects etc..) and swelling disappears or becomes less prominent while taking rest or in lying down position or with a gentle push (which means the swelling is reducible).

This case describes a woman with an inguinal ovary who presented with swelling in the left groin associated with pain. A review of the literature was done which revealed 15 case reports in adults. The majority presented with a groin mass and was diagnosed at the time of surgery for suspected bowel hernia as evident in this case.

### CASE REPORT

A 25-year-old woman presented to the department with complaints of swelling in the left groin for 6 months on a background of longstanding left-sided iliac fossa pain. The swelling was not reducible and the pain aggravated after taking food and after strenuous physical work. Medical history was insignificant. Obstetric history included two vaginal deliveries followed by tubectomy 2 years back. The patient had stable vitals (pulse 84/min, blood pressure of 130/80 mm-Hg, and respiratory rate 18/min). Clinical examination revealed an irreducible movable mass in her left groin that appeared larger while straining.

An ultrasound (USG) scan demonstrated retroverted uterus. The right ovary appeared normal; however, the left ovary was not identified. Since the content and nature of a hernia were effectively identified in USG, no further diagnostic examination was performed

and a final diagnosis of the left indirect inguinal hernia was made.

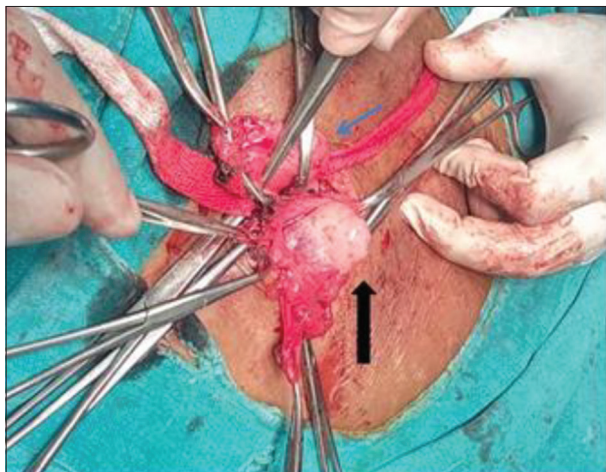
Later on, the patient was planned for hernioplasty. Intraoperative findings revealed the left ovary along with fimbriae of left fallopian tube herniating through the left internal inguinal ring (Fig. 1). The contents were reduced; the round ligament is clamped and cut. Hernioplasty was performed with a prolene mesh (Fig. 2). The post-operative period was uneventful and the patient was discharged on the 7<sup>th</sup> post-operative day. The patient was asymptomatic at 3 months follow-up.

### DISCUSSION

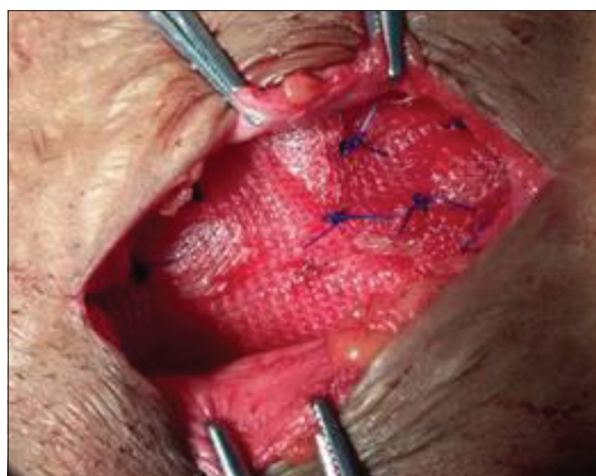
Inguinal hernias occur in <5% of women [3]. Not only in this case; in all cases of hernia; the patient must be promptly evaluated to assess the nature of hernia (reducibility/irreducibility) as irreducible hernias will have more chances to develop complications (strangulation, incarceration etc..). In most circumstances, the diagnosis of an inguinal hernia can be made based on history and physical examination alone.

Inguinal hernias may present as an asymptomatic finding such as a painless bulge in the groin, or in a subacute or acute manner, with mild to severe abdominal-pelvic pain [4]. A differential diagnosis of the abdominal wall hernia must be considered in an adult woman with severe abdominal pelvic pain. Hernias may frequently be overlooked particularly if not assessed in a physical examination.

Hernias may contain a variety of visceral organs, of which intestines or omentum is most commonly found, resulting in incarceration or strangulation which would be a surgical emergency. The ovary or fallopian tube may also become entrapped, although this is rarely considered. The patient may present in a nondescript manner and describe a heaviness or dull discomfort in the groin that is most pronounced when intra-abdominal pressure is increased.



**Figure 1:** Left ovary along with fimbria (black arrow) within the sac in the left inguinal canal. Round ligament being retracted aside (blue arrow)



**Figure 2:** The contents (ovary and fimbria) are reduced. Round ligament is clamped and cut. Polypropylene mesh is placed and hernioplasty done

Typically, hernias can be diagnosed by careful palpation on physical examination and confirmed by USG imaging. On USG, the hernias with ovary as content appear as either solid masses or solid masses containing cysts. However, when USG results remain ambiguous and there is a concern for entrapped organs, a computed tomography scan can be performed to provide definitive diagnosis and aid in proper counseling, consultation, and timely decision-making for urgent surgical management.

In adult women, indirect hernias are more common than direct hernias and typically occur during age 40–60 years [3]. Most of these hernias contain intestinal contents and rarely viscera such as female adnexa (ovaries or fallopian tubes) in 3% of hernia cases [5]. If entrapment of the female adnexa occurs, it is found more frequently in female infants due to anatomical causes including a relatively short inguinal canal, a canal that has an oblique direction through the abdominal wall, and a diverticulum of Nuck [5-8]. The occurrence of adnexa within an indirect hernia in women, as seen in this patient, would be unexpected and uncommon. When discovered in adult females, the majority of hernias reported are found in perimenopausal or postmenopausal women [5,9].

Timely management must be undertaken to ensure prompt surgical intervention to reduce the risk of ovarian damage and subsequent infertility. In past reports where female adnexa was involved, more than half required oophorectomy secondary to strangulation [5]. When extending to cases involving female infants or children, 27% of those who presented with irreducible ovaries were found to have infarcted ovaries at surgery [8] as reported in a series of 1699 children with an inguinal hernia. Thus, female adnexa is particularly vulnerable to damage when entrapped in inguinal hernias, and failure to recognize this may result in an infarcted and unsalvageable ovary and/or fallopian tube.

In summary, we have described the rarity of a normal fallopian tube and ovary within an indirect inguinal hernia in a premenopausal adult female. The majority of cases present with a groin mass and were diagnosed at the time of surgery for suspected bowel hernia as evident in this case.

## CONCLUSION

The diagnosis of entrapped viscera including the adnexa must be considered in the differential diagnosis of hernias in adult women, to ensure proper surgical and medical management. The surgical intervention should be done in a timely fashion to relieve torsion and to return normal perfusion to the adnexa.

## ACKNOWLEDGMENT

The authors would like to thank Dr. Ravi Kiran Nudurupati herewith acknowledge that the case report done by us was genuine and is not published elsewhere.

## REFERENCES

1. Artas H, Gurbuzer N. Inguinal hernia containing both ovaries and the uterus in an infant. *J Ultrasound Med* 2012;31:1138-9.
2. Walsh SZ. The incidence of external hernias in premature infants. *Acta Paediatr* 1962;51:161-4.
3. Kark E, Kurzer M. Groin hernias in women. *Hernia* 2008;12:267-70.
4. Sherman VM, Brunicaudi FC. *Inguinal Hernias in Schwartz's Principles of Surgery*. 9th ed. New York, USA: McGraw-Hill; 2010.
5. Gurer A, Ozdogan M, Ozlem N, Yildirim A, Kulacoglu H, Aydin R, *et al*. Uncommon content in groin hernia sac. *Hernia* 2006;10:152-5.
6. Kapur P, Caty MG, Glick PL. Pediatric hernias and hydroceles. *Pediatr Clin North Am* 1998;45:773-89.
7. Okada T, Sasaki S, Honda S, Miyagi H, Minato M, Todo S, *et al*. Irreducible indirect inguinal hernia containing uterus, ovaries, and fallopian tubes. *Hernia* 2012;16:471-3.
8. Boley SJ, Cahn D, Lauer T, Weinberg G, Kleinhaus S. The irreducible ovary: A true emergency. *J Pediatr Surg* 1991;26:1035-8.
9. Ozkan OV, Semerci E, Aslan E, Ozkan S, Dolapcioglu K, Besirov E, *et al*. A right sliding indirect inguinal hernia containing paraovarian cyst, fallopian tube, and ovary: A case report. *Arch Gynecol Obstet* 2009;279:897-9.

*Funding: None; Conflict of Interest: None Stated.*

**How to cite this article:** Nudurupati RK, Malini PS, Nallamalapu NR. A rare case of indirect inguinal hernia with ovary as content at a hospital of Visakhapatnam. *Indian J Case Reports*. 2018;4(5):405-406.

Doi: 10.32677/IJCR.2018.v04.i05.025