



## Uncomplicated Inguinal Hernia Containing Ovary and Fallopian Tube Associated to Endometriotic Cyst Case Report

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### Abstract

The inguinal hernias are the most common kind of abdominal wall hernia worldwide. The inguinal hernias containing ovary and/or fallopian tubes are an exceptional finding; most of the cases are reported on pediatric population approximately in 15% to 20%. Is an extremely rare finding at adult population, reported only three cases in the literature? The finding, also, of an endometriotic cyst, has never been reported. We report a case of an ovary with an endometriotic cyst in an uncomplicated inguinal hernia in a 46-years-old woman.

**Keywords:** Inguinal hernia; Ovary inguinal hernia; Sliding ovary

### Introduction

Abdominal wall hernias have a prevalence of 1.7% in general population and 4% in adults over 45 years old; in Mexican population, the incidence is 10% [1,2]. Inguinal hernias are the 75% of all the abdominal wall hernias worldwide, with an incidence of 58.5% in Mexican population [2]. The probability that a person surgical be submitted to a procedure for inguinal hernia reparation during his lifetime is 27% in men and 3% in women [3]. The inguinal herniorrhaphy is one of the most common procedures performed by general surgeon, approximately 10 per 100 thousand people in United Kingdom and 28 per 100 thousand people in United States of America [1]. The inguinal hernias containing ovary and/or fallopian tubes are an exceptional finding; most of these cases are reported on pediatric population, usually associated to premature infants or with congenital abnormalities, presented in this population approximately in 15% to 20% [4]. However, is an extremely rare finding at adult population, with only three reported cases in the literature since 2005 and without documented cases associated to adnexal cysts? In this article, we present a left inguinal hernia containing ovary and Fallopian tube from same side, associated to endometriotic cyst, without vascular compromise.

### Case Presentation

A 46-years-old woman, with surgical history of open appendectomy 11 years ago, with gynecological history with regular menstruation, presenting every 28 days during 5 days, with three pregnancies, two childbirths and one spontaneous abortion. She started on March 2018 noting raising volume at left inguinal area associated to stinging pain, intensity 5/10 in VAE, non-irradiated, increased with physical efforts and walking, decreased with the rest, progressive volume increase in the area, without color changes neither intestinal habits. At physical examination, we found a protrusion at left inguinal area, approximately 5 cm in diameter, which increased up to 8 cm with Valsalva maneuver, irreducible, indurated, no mobile, no fluctuant, external inguinal ring untouchable, without color changes in the skin, tender to the touch, the rest of the physical examination normal. The patient is schedule for left inguinal herniorrhaphy. During the procedure, we find an indirect inguinal hernia containing a hernia sac cystic of 10 cm × 9 cm, with wine color liquid in the interior approximately 70 cc, the left ovary and left fallopian tube with no abnormalities, without torsion, a fibrotic ring of 3 cm × 5 cm (Figure 1), for which we take wedge biopsy from left ovary and dissect the cyst up to the total liberation from the fibrotic ring; we performed the reduction of the left ovary and fallopian tube and inguinal defect repair with McVay technique, without complications.

### Discussion

The incidence of hernias containing gynecologic tissues has been observed in approximately

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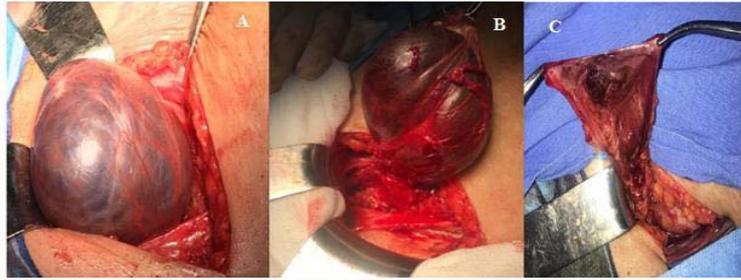
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**Figure 1:** Tran's surgical findings. A) Hernia sac outing through the external inguinal ring. B) Endometriotic ovarian cyst with the left ovary and fallopian tube. C) Left ovary and left tube without vascular compromise.  
Histopathology report: Hernia sac: fibroadipose tissue. Left ovary biopsy: endometriosis.

15% to 20%, with the ovary as the most common finding structure, predominately in right side [5]. This incidence decrease with the age, finding a 70% of all the cases in patients younger than 5 years old [6]. However, the mentioned data are statistics from pediatric population. There are no statistics about the incidence of this hernia presentation in adult patients. During the embryological development, the round ligament, that is a gubernaculum ram pass through the inguinal canal and fixed at the labium majus; if this gubernaculum fails during the fixation of the ovary to the uterus, let the round ligament and it contains pass through the inguinal canal toward the labium majus. This is frequently associated to embryological defects, most of them observed in premature patients [7]. In our case, the patient has not had an embryological anomaly or premature history. The uneducable ovary in an inguinal hernia has been reported in a 4% to 11% of all the cases of hernia with gynecological contain and only in 2% to 33% presents torsion and strangulation, that is why this kind of hernia has not a significant risk of vascular compromise [4]. The mechanism of the torsion is related with the diameter of the internal inguinal ring and the size of the ovary, this last has to have a bigger size than the vascular pedicle, which let the ovary and fallopian tube to turn around and present torsion. The surgical treatment depends on the tran's surgical findings, trying to perform, as far as possible, a conservative management of the annexes during the herniorrhaphy; the resection of the ovary must be performed if there is vascular compromise. The role of the oophoropexy is debated, however is recommended that at the moment of the diagnosis of a hernia containing gynecological structures, the repositioning of the ovary has to be performed as soon as possible to avoid the risk of torsion, infarction and recurrence [4,8]. Because there is no literature about the protocol for the management in this case of hernia in adult women, in this case we evaluate the viability of the ovary and we conserved it, performing only the inguinal herniorrhaphy without oophoropexy.

## Conclusion

This kind of hernia is not a common pathology and is a tran's surgical finding. There are no references in the literature for the diagnosis and management for this hernia. This article could be used like reference for similar cases.

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## References

1. Jenkins JT, O'Dwyer PJ. Inguinal Hernias. *BMJ*. 2008;336(7638):269-72.
2. Carrera LN, Camacho LMR. Type of inguinal hernia found in the general population, according to Nyhus classification, *General Surgeon*. 2018;40(4):250-4.
3. Simons MP, Aufenacker T, Bay-Nielsen M, Bouillot JL, Campanelli G, Conze J, et al. European Hernia Society guidelines on the treatment of inguinal hernia in adult patients. *Hernia*. 2009;13(4):343-403.
4. George EK, Oudesluys-Murphy AM, Madern GC, Cleyndert P, Blomjous JG. Inguinal hernias containing uterus, Fallopian tube, and ovary in premature female infants. *J Pediatr*. 2000;136(5):696-8.
5. Zeng K, Murphy J, Wilson EE. Female reproductive structures found in inguinal hernia sacs: A retrospective review. *J Pediatr Surg*. 2019;54(10):2134-7.
6. Fowler CL. Sliding indirect hernia containing both ovaries. *J Pediatr Surg*. 2005;40(9):13-4.
7. Golash V, Cummins RS. Ovulating ovary in an inguinal hernia. *Surgeon*. 2005;3(1):48.
8. Gohary AE, Sliding ovary inside a hernia sac; a true emergency. *J Ped Surg Case Rep*. 2014;2:522-3.