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*Case Report*

# Hernial sac lithiasis, a rare presentation of inguinal hernia

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## Abstract

Inguinal hernias sometimes surprise surgeons with unexpected contents. This article reports a 46-year-old male with a painless inguinal mass. Surgical exploration showed three smooth yellowish concretions in the hernia sac. To our knowledge, this is the first report of hernial sac lithiasis.

**KEY WORDS:** Hernia sac, inguinal hernia, lithiasis.

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Inguinal hernia is a common surgical problem [1]. A hernia is defined as the protrusion of a viscus or part of a viscus through the walls of its containing cavity. It is a commonly encountered condition in the inguinal region, where the hernia sac may contain the omentum or small bowel. However, certain unusual contents may be encountered such as the bladder, a Meckel's diverticulum (Littre's hernia), or a portion of the circumference of the intestine (Richter's hernia) [2]. This article reports a case of lithiasis in an inguinal hernia sac.

## Case Presentation

A 46-year-old man presented with bulging and induration of the right lower quadrant of his abdomen. On physical examination, an inguinal hernia with two hard, painless, and mobile masses in the hernia sac was detected. Preoperative laboratory tests including complete blood count, fasting blood sugar, serum cholesterol and triglyceride, blood urea nitrogen, serum creatinine, serum uric acid, urinalysis, and urine culture were all normal. At exploration, an indirect hernia sac was found. It was pink-gray in color with several hard, white nodules on the distal part, the largest measuring 5 mm. Also, three smooth yellowish concretions were found in the hernia sac (figure 1). The inguinal hernia was repaired and the postoperative course was uneventful. The concretions shrank ex vivo owing to water loss but regained their original size and shape when immersed in water. Microscopic study of the hernia sac showed fibrofatty tissue with one side lined by benign mesothelial cells. Sections from the nodule showed calcification. Chemical analysis of the concretions demonstrated organic material, especially proteins with some calcium oxalate and calcium hydrogen phosphate crystals.

## Discussion

Inguinal hernias sometimes surprise surgeons with unexpected or rarely encountered contents. Inguinal herniation of the bladder, for instance, is an uncommon finding with fewer than 200 cases reported in the literature. Manatt et al reported a case of inguinal herniation of the bladder in a premature infant [3].

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**Figure 1.** Lithiasis in hernial sac.

Another example is Fumado's report of a case of a huge bladder hernia where the near-entirety of the bladder had migrated into the scrotum [4]. Brady et al reported a case of spontaneous rupture of the biliary system with retroperitoneal biloma and biliscrotum presenting as an incarcerated inguinal hernia [5]. Kulacoglu reported a 60-year-old male patient with a painless inguinal mass. Surgical exploration showed a 4-cm mass beneath the external oblique aponeurosis that consisted of a hernia sac containing an inflamed and remarkably swollen appendix epiploica of the sigmoid colon secondary to torsion [6]. Mongardini et al presented the only case reported in the literature of a woman with a Meckel's diverticulum involved in a strangulated left inguinal hernia [7]. Gupta reported a rare presentation of Amyand's hernia (presence of the vermiform appendix lying within an inguinal hernia), where the appendix was found within the left hernia sac during surgery for an incarcerated inguinal hernia in a nine-month-old male infant [8].

An ovary may occasionally be found in an inguinal hernia in the newborn female. This is, however, an extremely rare finding in premenopausal women. Golash and Cummins reported a case of an ovulating ovary in an incarcerated inguinal hernia [9]. Diaz-Montes presented a case of occult metastases from recurrent ovarian cancer growing in a right inguinal hernia sac [10]. Staniscia presented a rare case of intrasaccular tumor of the colon in an inguinal hernia sac [11]. Testini found a mesothelioma of the hernia sac peritoneum in an incarcerated left inguinal hernia [12]. This article reports a 46-year-old male with a painless inguinal mass found on surgical exploration to be a hernia sac containing three smooth yellowish concretions. This is, to the best of our knowledge, the first report of hernia sac lithiasis.

## References


1. Oruc MT, Akbulut Z, Ozozan O, Coskun F. **Urological findings in inguinal hernias: a case report and review of the literature**. *Hernia* 2004; 8(1):76-79.
2. Gupta S, Sharma R, Kaushik R. **Left-sided Amyand's hernia**. *Singapore Med J* 2005; 46(8):424-425.
3. Manatt S, Campbell JB, Ramji F, Kuhn A, Frimberger D. **Inguinal herniation of the bladder in an infant**. *Can J Urol* 2006; 13(2):3057-3058.
4. Fumado CL, Rodriguez TJ, Pastor LS, Riera CL, Franco ME. **[Massive bladder hernia]**. *Arch Esp Urol* 2005; 58(10):1078-1080.
5. Brady RR, McAteer E, Weir CD. **Biliscrotum and retroperitoneal biloma: spontaneous rupture of the biliary system presenting as an incarcerated inguinal hernia**. *Ulster Med J* 2006; 75(1):85-87.
6. Kulacoglu H, Tumer H, Aktimur R, Kusdemir A. **Epiploic appendicitis in inguinal hernia sac presenting an inguinal mass**. *Hernia* 2005; 9(3):288-290.
7. Mongardini M, Merlino P, Schillaci F, Cola A, Blasi S, Fanello G et al. **[Gangrene of Meckel's diverticulum in strangulated left inguinal hernia]**. *G Chir* 2005; 26(10):384-386.
8. Gupta S, Sharma R, Kaushik R. **Left-sided Amyand's hernia**. *Singapore Med J* 2005; 46(8):424-425.

9. Golash V, Cummins RS. **Ovulating ovary in an inguinal hernia**. *Surgeon* 2005; 3(1):48.
10. Diaz-Montes TP, Jacene HA, Wahl RL, Bristow RE. **Combined FDG-positron emission tomography and computed tomography for the detection of ovarian cancer recurrence in an inguinal hernia sac**. *Gynecol Oncol* 2005; 98(3):510-512.
11. Staniscia G, Graziani S, De Nicola E, Ciampaglia F. **[Surprise in the hernia sac: the intrasaccular tumor of the sigma]**. *Ann Ital Chir* 2004; 75(5):599-601.
12. Testini M, Scattone A, Venere BD, Lissidini G, Piccinni G, Palmisano S et al. **Primary malignant peritoneal mesothelioma in an incarcerated groin hernia: report of a case**. *Surg Today* 2005; 35(5):421-424.