

## Bilateral inguinal hernia with an uncommon content : A case report

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### Abstract

Here we present a sixty-two year old man with bilateral swellings palpated in inguinal areas on physical examination. Ultrasonography and abdominal multi-detector computed tomography revealed a bladder herniation through the right inguinal canal and a sigmoid colon herniation through the left inguinal canal. Radiologic imaging methods are important and can guide clinicians for preemptive or emergent surgery. (*Acta gastroenterol. belg.*, 2016, 79, 495-496).

**Key words** : inguinal hernia, bladder hernia, sigmoid colon hernia, ultrasonography, computed tomography, radiology.

### Introduction

An abdominal hernia is a result of protrusion of a part of an intra-abdominal organ through an opening or weak area in the abdominal wall. Ultrasonography [US] is the preferred method for imaging with a limited capacity in defining the internal content of the hernia sac (1). Multi-detector computed tomography [MDCT] can provide valuable data about accompanying and extension of abdominal structures into a hernia by the help of reconstruction techniques such as multiplanar reconstruction [MPR]. Here we present a patient with a bladder and sigmoid colon herniation through both inguinal canals to emphasize the preoperative value of radiology.

### Case report

A 62-year-old man was admitted to the outpatient clinic with complaints of unexplained weight loss (10 kg in a year), symptoms of fatigue, frequent urination and a mild left lower quadrant pain, which were present for one year. Physical examination revealed bilateral reducible swellings around both inguinal areas that were present for six months. A complete blood count was normal while urinalysis showed microscopic hematuria.

A first line US of inguinal areas revealed a bladder herniation on the right side. On the left inguinal canal, a visceral part of the intestine was barely defined sonographically. MDCT was performed to precisely evaluate the content of hernia sacs without intravenous contrast administration due to allergic predisposition of the patient. On MDCT images, a partial bladder herniation

through the right inguinal canal and an inguinoscrotal herniation of the sigmoid colon through the left inguinal canal was present with no signs of strangulation such as bowel wall thickening or discontinuity along the herniated segment (Figure 1).

The sigmoid colon and the partial bladder herniations were confirmed on surgery and repaired by hernioplasty after successful reduction of sigmoid colon and bladder. There were no signs of strangulation on the herniated sigmoid colon portion. The patient's frequent urination and lower abdominal pain complaints disappeared after the hernioplasty.

### Discussion

Inguinal hernias constitute 75% of all abdominal wall hernias and can involve any intra-abdominal organ (2,3). But bladder involvement and sigmoid colon herniations are relatively rare with an incidence of 0.36-4 % and 3.4% among all inguinal hernias, respectively (3-6). Hydronephrosis, acute renal failure, bowel ischemia and necrosis can be seen in advanced or undiagnosed inguinal bladder and sigmoid colon hernias. Preoperative detection of intra-abdominal organs involving the inguinal hernia is essential to prevent injuries during the hernioplasty (4-8). US of the inguinal areas can introduce the widened inguinal canals and content of the hernia sac. Also it can be used to evaluate for other reasons for abdominal pain, lower urinary tract symptoms and ileus or subileus due to bowel obstruction (5). Nevertheless, US has some limitations and evaluation of the content of the hernia sac, extension of herniated tissues and detection of effects of herniation on the herniated organs such as ischemia, infarction or inflammation may be inadequate. MDCT is now frequently used for the evaluation of hernias. Improved contrast and spatial

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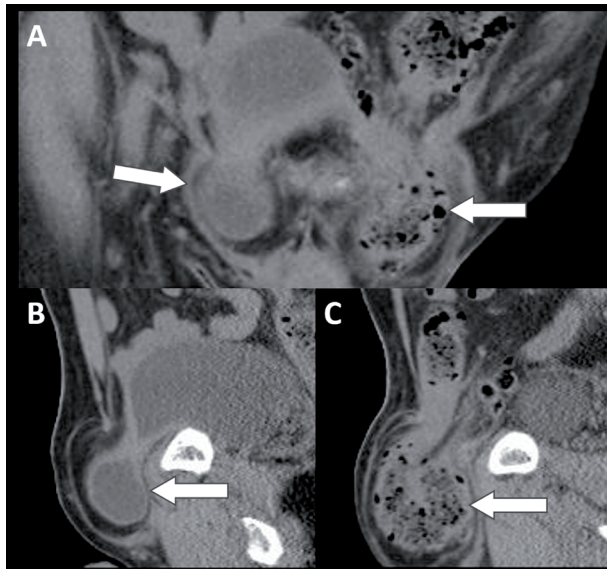


Fig. 1. — Bladder herniation through the right inguinal canal (A,B) and sigmoid colon herniation through the left inguinal canal (A,C) is observed in coronal and sagittal reformatted MDCT images (arrows). Strangulation findings such as free fluid, striation of fat-plans in hernia sacs and herniated bladder and sigmoid wall thickening are not observed. Proximal intestinal loops are not dilated.

resolution, intravenous contrast administration, new post processing techniques like MPR, volume rendering, and maximum and minimum intensity projections can now allow precise evaluation of abdominal wall hernias and associated anatomic variations and complications related to hernias (7). In our case, US revealed the hernias through bilateral inguinal canals but provided limited data about the sigmoid colon herniation through the left inguinal canal.

Clinicians should keep in mind that inguinal hernias with bladder herniation can mimic symptoms of benign

prostatic hypertrophy [BPH], but physical examination and US of the prostate can eliminate the diagnosis of BPH with median lobe enlargement, as in this case. Also inguinal lymphadenopathy, testicular torsion, lipoma, femoral hernia and epididymitis may simulate similar symptoms (7). Open or laparoscopic hernia repair surgery is recommended for all inguinal hernias, unless there are significant medical contraindications or patient comorbidities.

Comprehensive physical examination with detailed history can guide the clinician to the diagnosis of inguinal hernia in suspected patients. Radiologic imaging methods are essential to detect and display the internal content of the inguinal hernia and the extension of the hernia, which may guide preemptive or emergent surgery.

The authors declare that they have no conflict of interest.

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