

Figure 2. CT images of the abdomen and pelvis, in a coronal view (A) and in sagittal views (B,C), showing a massive right-sided scrotal cystocele.

After work-up of the non-Hodgkin lymphoma, a hernia reduction followed by inguinal herniorrhaphy was planned in order to prevent long-term complications of bladder herniation.

Although the urinary bladder is involved in up to 4% of inguinal hernias, massive scrotal cystocele is quite uncommon⁽¹⁾. Advanced age, obesity, and male gender are recognized risk factors for bladder herniation⁽²⁾. Bladder herniation is usually asymptomatic, although some patients complain of voiding-related scrotal swelling, two-stage micturition (a first spontaneous voiding followed by a second requiring manual compression of the inguinoscrotal region), urinary tract infections, or irritative lower urinary tract symptoms (LUTS) such as urgency, frequency, and nocturia secondary to bladder outlet obstruction or infection⁽¹⁻³⁾. Possible complications of untreated scrotal cystocele include hydronephrosis, renal failure, cystolithiasis, vesico-ureteral reflux, bladder necrosis, and bladder perforation^(2,4,5).

The preoperative diagnosis of scrotal cystocele is important to prevent iatrogenic injury of the herniated bladder during repair surgery⁽³⁾. The condition should be suspected in all patients presenting with inguinal hernias and concomitant renal failure or LUTS, especially if a painless unilateral scrotal swelling is detected^(4,5). However, as illustrated by our case, the absence of clinically detectable scrotal swelling should not exclude the hypothesis of bladder herniation, nor should it preclude further investigation. The imaging diagnosis can be established by CT, ultrasound, cystography, or intravenous pyelography⁽²⁾. Because CT provides a clear anatomical outline of the herniated contents and allows prompt identification of complications, thereby enabling appropriate surgical planning, it is an especially valuable tool in the work-up of scrotal cystocele⁽⁶⁾.

Hernia repair has shown to be effective in improving LUTS and reducing complications in patients with significant bladder

herniation; therefore, standard treatment of scrotal cystocele consists of reduction or resection followed by herniorrhaphy⁽¹⁾. Acute bladder infarction or urinary obstruction can require urgent laparotomy with resection of the affected portion of the bladder⁽³⁾. In the elective setting, partial bladder resection is often restricted to patients presenting with bladder necrosis, a tumor in the herniated bladder, or a bladder diverticulum⁽²⁾. However, timely preoperative diagnosis of scrotal cystocele remains the single most important determinant of a successful surgical outcome, making proper clinical and imaging assessments invaluable.

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Lipomatous hypertrophy of the interatrial septum

Dear Editor,

A 74-year-old female patient underwent screening for neoplasia due to weight loss in the last six months, presenting with no other complaints. She had hypertension and diabetes mellitus, both of which were well controlled with medication. During the investigation, computed tomography (CT) of the chest

showed interatrial septum (IAS) thickening of 2.4 cm, caused by fatty infiltration, sparing the fossa ovalis (Figures 1A, 1B, and 1C). Complementary evaluation by transesophageal echocardiogram (Figure 1D) corroborated the previous findings. On the basis of those data, a diagnosis of lipomatous hypertrophy of the interatrial septum (LHIAS) was confirmed.

The evaluation of the cardiovascular system by imaging methods has been the objective of a series of recent publications

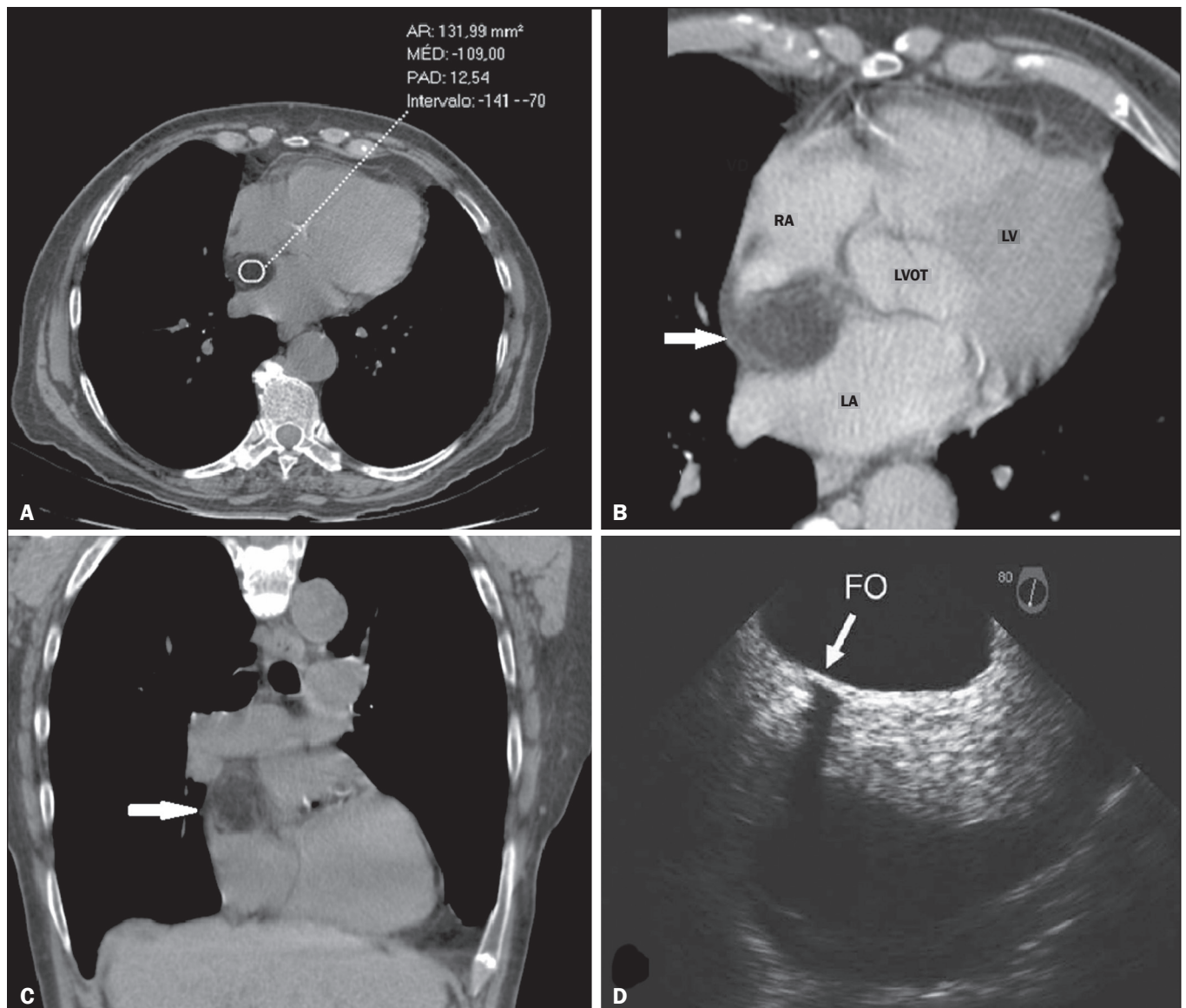


Figure 1. **A:** Non-contrast-enhanced CT scans showing IAS thickening of 2.4 cm with a density of -109 HU, characteristic of fatty infiltration. **B:** Contrast-enhanced CT with angled reformatting for the four heart chambers, showing thickening of the IAS with no evidence of contrast enhancement (arrow). **C:** Non-contrast-enhanced coronal CT scan showing fatty infiltration of the IAS (arrow). **D:** Transesophageal echocardiogram showing thickening of the IAS, sparing the fossa ovalis (arrow). RA, right atrium; LA, left atrium; LV, left ventricle; LVOT, left ventricular outflow tract; FO, fossa ovalis.

in the radiology literature of Brazil⁽¹⁻⁴⁾. LHIAS is characterized by excessive fat deposition in the IAS, sparing the fossa ovalis and expanding the transverse diameter of the IAS to > 2 cm⁽⁵⁻⁹⁾. The condition is more common among women and the elderly; it has also been associated with corticosteroid use, obesity, and pulmonary emphysema⁽⁵⁻⁸⁾. In most cases, LHIAS presents as an incidental finding on imaging examinations. However, in rare cases, it can be the cause of obstruction of the vena cava and cardiac arrhythmias, especially those of atrial origin.

Among the imaging methods employed in the evaluation of patients with suspected LHIAS, echocardiography shows a limited capacity for characterizing the tissue that composes cardiac masses, CT and magnetic resonance imaging (MRI) therefore being fundamental for further evaluation. Those methods are capable of identifying IAS thickening > 2 cm sparing the fossa ovalis, with or without a dumbbell-like morphology, as well as characterizing the fatty infiltration of IAS, defined as densities between -80 HU and -120 HU on CT and as a hyperintense

signal in T1-weighted sequences, as well as a signal drop in fat-suppressed sequences, on MRI^(5,6,8,10).

Recent studies have highlighted the use of ^{18}F -fluorodeoxyglucose positron emission tomography/computed tomography in the evaluation of LHIAS, showing that, for individuals with LHIAS, ^{18}F -fluorodeoxyglucose uptake is greater in the brown fat deposited in the IAS than in the subcutaneous fat of the chest wall, because the former is metabolically active. That could represent an imaging pitfall, leading to an incorrect diagnosis of infectious, inflammatory or neoplastic lesion. To avoid misinterpretations, it is necessary to make the correlation with the CT and MRI findings^(6,7,11).

Because LHIAS is a benign condition, most cases do not require treatment, although surgery can be indicated in the rare cases in which there are symptoms secondary to the compression of structures, such as the vena cava and the pulmonary veins^(6,8). The main differential diagnosis is cardiac lipoma, which is encapsulated and affects the fossa ovalis. Another major

differential diagnosis is liposarcoma, which is distinguished by atypia and by its rapid, aggressive evolution.

In conclusion, a diagnosis of LHIAS should be considered when there is > 2 cm of thickening, due to fatty infiltration, of the IAS, sparing the fossa ovalis. It should also be borne in mind that a diagnosis of LHIAS is more common in elderly patients.

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Sarcoidosis: when the initial manifestations are musculoskeletal symptoms

Dear Editor,

A 24-year-old female presented with palpable, painful nodules, which had appeared three weeks prior, on both calves. Laboratory tests showed no abnormalities. Magnetic resonance imaging (MRI) revealed oval lesions showing high signal intensity in short-tau inversion-recovery (STIR) sequences, with

enhancement after gadolinium infusion, in the ventral portion of the muscles, together with oval lesions in the bones that showed low signal intensity in T1-weighted sequences and high signal intensity in STIR sequences (Figures 1 and 2). The diagnostic hypothesis was musculoskeletal sarcoidosis, which was confirmed by biopsy. After treatment with corticosteroids, there was regression of the symptoms and of the lesions seen on the MRI scans.

Sarcoidosis is a systemic disease of unknown cause⁽¹⁾, which causes inflammatory granulomas in organs and tissues⁽²⁾, affecting more women than men⁽³⁾. Musculoskeletal sarcoidosis is a rare condition, first reported by Licharew in 1908⁽⁴⁾, that has two forms of clinical presentation^(2,5): nodular and myopathic. The nodular form often involves the extremities, especially the legs⁽¹⁾, giving rise to solitary or multiple nodules⁽²⁾. The most common sign is a painless or only slightly painful mass^(1,2). The

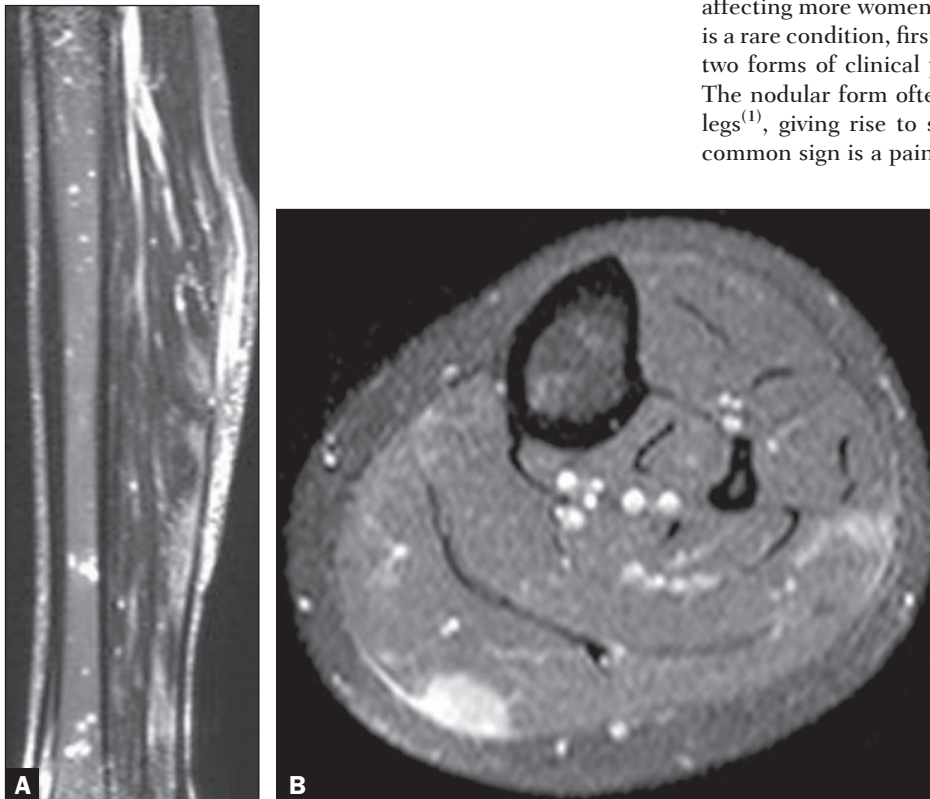


Figure 1. A: Non-contrast-enhanced STIR sequence showing nodules of high signal intensity, in the muscle and in the bone. **B:** Contrast-enhanced, fat-saturated T1-weighted sequence showing enhancement of the nodule to be biopsied.