

The hidden danger of obesity: A massive abdominal wall hernia

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Abdominal wall hernias are a common condition, but their diagnosis can be challenging in obese patients due to body habitus. Delayed recognition may lead to complications such as intestinal obstruction and ischemia, requiring urgent intervention.

A 62-year-old woman with obesity, without any significant medical or surgical history, presented to the emergency department with dark vomiting, abdominal distension, and pain persisting for 24 h. There was no history of trauma. On examination, she was hemodynamically stable, but her abdomen was distended with a painful, palpable mass. Blood count and blood biochemistry were normal, with the only notable finding being hyperlactatemia (10.5 mmol/L). Contrast-enhanced computed tomography (CT) of the upper abdomen revealed a large abdominal wall hernia (45 × 45 cm) containing gastric and intestinal contents (small intestine and colon), with gastric distension suggestive of obstruction or sub-obstruction (Figs. 1a,b and 2a,b). Following gastric decompression, which alleviated pressure on both the hernia and stomach, thereby reducing the risk of ischemia, a partial spontaneous reduction of the hernia was achieved (Fig. 2c). Subsequently, the patient underwent elective surgical repair, which included hernia reduction, abdominal wall closure, and the use of mesh reinforcement. Postoperatively, the patient was closely monitored for potential complications, such as infection or hernia recurrence, and managed with appropriate pain control and nutritional support. The patient showed favorable recovery, and follow-up care focused on the detection of hernia recurrence, as well as the implementation of lifestyle modifications, including weight management, to reduce the risk of future hernias.

This case underscores the importance of considering abdominal wall hernias as a potential cause of acute gastrointestinal symptoms, particularly in obese patients, where physical examination findings may be obscured. Several studies have demonstrated that obesity, through increased intra-abdominal pressure and the inflammatory state it induces, is associated with tissue weakening, an increased

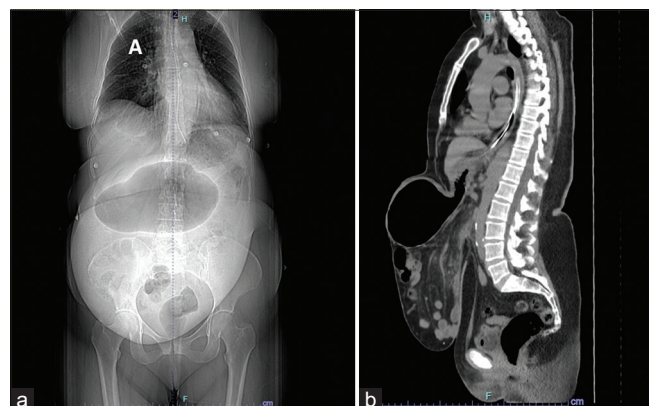


Figure 1: Coronal (a) and sagittal (b) views of the computed tomography scan showing a large abdominal wall hernia (45 × 45 cm) containing gastric and intestinal contents (small intestine and colon), with associated gastric distension

risk of surgical complications, and higher recurrence rates of hernias. Strategies such as preoperative weight loss, comorbidity management, minimally invasive surgical techniques, and the use of prosthetic materials have been shown to improve outcomes and reduce complications [1,2]. Postoperative rehabilitation is also essential for optimizing recovery and preventing recurrence [2].

Early imaging, particularly CT, is critical for accurate diagnosis and timely intervention [3,4]. In this case, gastric decompression led to partial spontaneous hernia reduction, facilitating an elective surgical approach rather than an emergent intervention. Prompt recognition and appropriate management of such complications are crucial for preventing severe outcomes and improving patient prognosis. Effective management of abdominal hernias in obese patients requires a multidisciplinary, individualized approach. Combating obesity, combined with advanced clinical practices and the integration of emerging technologies, is vital for improving patient quality of life, reducing associated morbidity, and delivering benefits to the healthcare system [2].

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Figure 2: Axial views (a and b) showing a large abdominal wall hernia containing the stomach and intestines. Image (c) depicts the bulky abdominal hernia after gastric emptying

REFERENCES

1. Barbosa YK, Linhares MR, Dos Reis MT, Bueno MF, Dos Reis PT, Guimarães CB, *et al.* A influência da parede abdominal no surgimento de hérnias em pacientes obesos: Uma revisão de literatura. *Stud Health Sci* 2023;4:1536-46.
2. Freitas MC, Bosco MC, Pereira CE, Mota TL, Peterle AM, Magalhães LL, *et al.* Impacto da obesidade no desenvolvimento e recorrência de hérnias abdominais: Relação com fatores de risco e abordagens de tratamento personalizadas. *Braz J Implantol Health Sci* 2024;6:3676-85.
3. Matzke G, Espil G, Dos Ramos Alferes JP, Larranaga N, Oyarzun A, Kozima S. A tour of the abdominal wall: An assessment of hernias by multidetector computed tomography. *Rev Argent Radiol* 2017;81:39-49.
4. Aguirre DA, Santosa AC, Casola G, Sirlin CB. Abdominal wall hernias: Imaging features, complications, and diagnostic pitfalls at multi-detector row CT. *Radiographics* 2005;25:1501-20.

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