



## **Cecal internal hernia through Winslow's hiatus: Laparoscopic resolution**

*Hernia cecal interna por hiato de Winslow: resolución laparoscópica*

*Hérnia cecal interna a través do hiato de Winslow: resolução laparoscópica*



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## Hernia cecal interna por hiato de Winslow: resolución laparoscópica

### CONCEPTOS CLAVE.

*¿Qué se sabe sobre el tema?*

*Las hernias internas a través del hiato de Winslow, o hernia de Blandin, un fenómeno raro pero potencialmente crítico, presentan un desafío multifacético para la precisión diagnóstica y el tratamiento efectivo en el ámbito de la práctica médica.*

*¿Qué aporta este trabajo?*

*Este artículo informa sobre un abordaje laparoscópico exitoso para el tratamiento de una hernia de ciego a través del hiato de Winslow. Este caso es de interés para la comunidad médica porque ilustra la viabilidad y eficacia de la laparoscopia en el tratamiento de esta afección rara pero potencialmente grave.*

### Divulgación

Las hernias internas en el cuerpo son poco comunes pero pueden ser graves. Pueden causar dolor abdominal y náuseas, y si no se tratan a tiempo, pueden llevar a problemas graves como la obstrucción intestinal. Es importante saber que un diagnóstico temprano y un tratamiento rápido pueden marcar la diferencia en estos casos.



## Cecal internal hernia through Winslow's hiatus: Laparoscopic resolution

### Abstract

**Keywords:**

internal hernia;  
cecum;  
laparoscopy;  
colectomy

**Background:** Hernia through Winslow's hiatus, known as Blandin's hernia, a rare but potentially life-threatening condition, represents a diagnostic and therapeutic challenge. This case report describes a successful laparoscopic approach to a cecum hernia through the foramen of Winslow in a 63-year-old female.

**Case Presentation:** The patient presented with 24 hours of abdominal pain and nausea. Abdominal CT scan revealed a herniated cecum and terminal ileum compressing the gastric chamber and portal vein, leading to periportal edema. Laparoscopic right colectomy was performed after successful colon content evacuation via the greater gastric curvature to facilitate reduction. This was done to aid in reduction, as there were indications of non-viability in the right colon. The procedure unfolded without complications.

The patient developed postoperative abdominal collections requiring percutaneous drainage but recovered well and was discharged within two weeks.

**Conclusion:** This case highlights the value of laparoscopy in managing foramen of Winslow hernias, offering minimally invasive benefits. Early diagnosis through imaging tools like CT is crucial for prompt surgical intervention and preventing complications like intestinal ischemia or perforation.



## Hernia cecal interna por hiato de Winslow: resolución laparoscópica

### Resumen

**Palabras clave:**

hernia interna; ciego;  
laparoscopia;  
colectomía

**Antecedentes:** La hernia por hiato de Winslow, conocida como hernia de Blandin, una afección rara pero potencialmente mortal, representa un desafío diagnóstico y terapéutico. Este informe de caso describe un abordaje laparoscópico exitoso de una hernia de ciego a través del agujero de Winslow en una mujer de 63 años.

**Presentación del caso:** El paciente presentó dolor abdominal y náuseas de 24 horas de evolución. La tomografía computarizada abdominal reveló una hernia de ciego e íleon terminal que comprimía la cámara gástrica y la vena porta, lo que provocaba edema periportal. La colectomía derecha laparoscópica se realizó después de una evacuación exitosa del contenido del colon a través de la curvatura gástrica mayor para facilitar la reducción. Esto se hizo para ayudar en la reducción, ya que había indicios de inviabilidad en el colon derecho. El procedimiento se desarrolló sin complicaciones.

El paciente desarrolló colecciones abdominales posoperatorias que requirieron drenaje percutáneo, pero se recuperó bien y fue dado de alta a las dos semanas.

**Conclusión:** Este caso resalta el valor de la laparoscopia en el manejo del foramen de las hernias de Winslow, ofreciendo beneficios mínimamente invasivos. El diagnóstico temprano mediante herramientas de imagen como la tomografía computarizada es crucial para una intervención quirúrgica rápida y prevenir complicaciones como isquemia intestinal o perforación.



## Hérnia cecal interna a través do hiato de Winslow: resolução laparoscópica

### Resumo

#### Palavras-chave:

hérnia interna;  
ceco;  
laparoscopia;  
colectomia

Antecedentes: A hérnia através do hiato de Winslow, conhecida como hérnia de Blandin, uma condição rara, mas potencialmente fatal, representa um desafio diagnóstico e terapêutico. Este relato de caso descreve uma abordagem laparoscópica bem-sucedida de uma hérnia de ceco através do forame de Winslow em uma mulher de 63 anos.

Apresentação do caso: O paciente apresentou 24 horas de dor abdominal e náusea. A tomografia computadorizada abdominal revelou hérnia de ceco e íleo terminal comprimindo a câmara gástrica e a veia porta, levando a edema periportal. A colectomia direita laparoscópica foi realizada após evacuação bem-sucedida do conteúdo do cólon através da grande curvatura gástrica para facilitar a redução. Isso foi feito para auxiliar na redução, pois havia indícios de inviabilidade no cólon direito. O procedimento transcorreu sem complicações.

O paciente desenvolveu coleções abdominais pós-operatórias necessitando de drenagem percutânea, mas se recuperou bem e recebeu alta em duas semanas.

Conclusão: Este caso destaca o valor da laparoscopia no manejo do forame das hérnias de Winslow, oferecendo benefícios minimamente invasivos. O diagnóstico precoce através de ferramentas de imagem como a tomografia computadorizada é crucial para uma intervenção cirúrgica imediata e prevenção de complicações como isquemia ou perfuração intestinal.



## Introduction

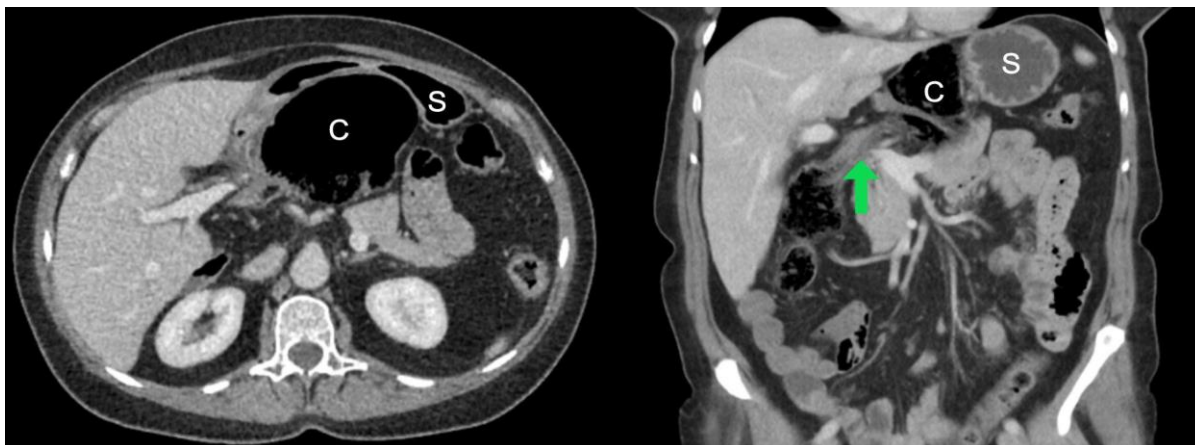
Internal hernias through Winslow's hiatus, or Blandin's hernia <sup>(1)</sup>, a rare but potentially critical phenomenon, presents a multifaceted challenge for diagnostic accuracy and effective treatment in the realm of medical practice. A delayed diagnosis is exposed to the risk of viscera ischemia and perforation leading to a high morbidity and mortality rate. The emergency treatment requires a surgical reduction of the herniated contents, through laparoscopy when possible <sup>(2)</sup>. Foramen of Winslow's hernias (FWH) are estimated to account for 8% of internal hernias and 0.08% of all hernias in general. These hernias can involve various abdominal structures, with the cecum being a notable site of occurrence, thus requiring a detailed comprehension of their clinical intricacies. The classification of FWH is based upon the organ involved, taking 4 different types. Type I includes small bowel

and represent about 65% of all cases, type II includes terminal ileum, cecum, and ascending colon, it's about 25%, type III includes transverse colon, contemplates 7% and type IV involves gallbladder or any other intra-abdominal structure such as the greater omentum, and it's about 3% <sup>(3)</sup>. Caecal herniation through the foramen of Winslow is an uncommon presentation of internal hernia with an estimated overall incidence of 0.02% <sup>(4)</sup>. The literature describes some predisposing factors. Three main mechanisms seem to be implicated in the foramen of Winslow hernia patho-genesis: excessive viscera mobility, abnormal enlargement of the foramen of Winslow, and changes in the intra-abdominal pressure.

## Case presentation

A 63-year-old female with no significant medical history was admitted to the Emergency Department due to abdominal pain and nausea of 24 hours evolution. She denied any other symptoms. Upon admission, the patient had a pulse of 90 bpm, blood pressure of 120/80 mmHg, and a temperature of 36.3 °C. On physical examination, her abdomen was distended and tender. After clinical evaluation, a laboratory was

performed showing a white blood cell count of 5.800/mm<sup>3</sup> (normal range: 4.000- 11.000/mm<sup>3</sup>). Computed tomography (CT) showed cecum and terminal ileum herniated through Winslow hiatus, compressing the gastric chamber and portal vein without completely obstructing it, however causing periportal edema (**Fig 1.**).

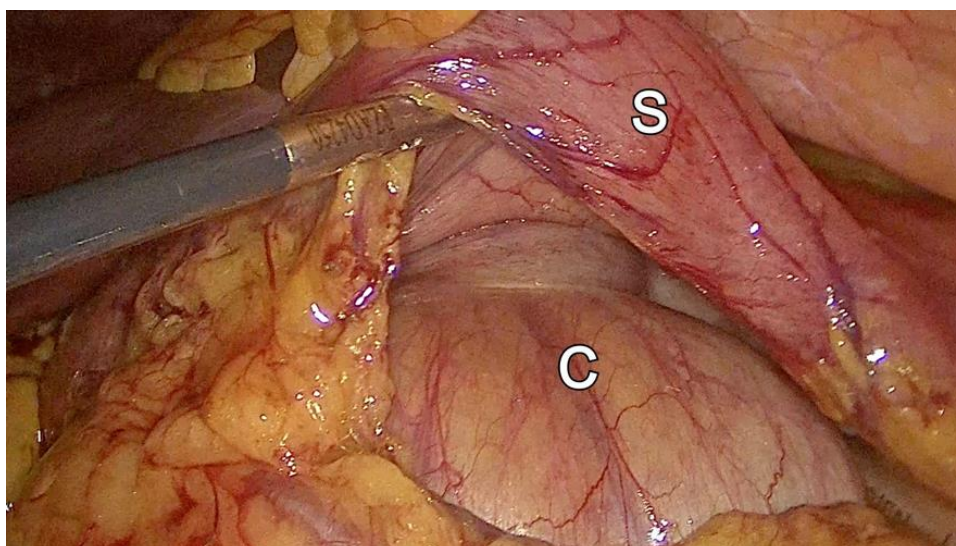


**Figure 1:** Computed tomography showing cecum (C) and terminal ileum herniated through

Winslow hiatus (green arrow), compressing the stomach (S) and portal vein.

Taking these findings into account, emergency surgical treatment was chosen.

Exploratory laparoscopy was performed, revealing significant gastric distension caused by a herniated cecum through Winslow's hiatus. Due to the inability to reduce the cecum from the right, using anatomical access to the lesser sac, the decision was made to access via the greater gastric curvature sectioning the gastrocolic ligament. (**Fig. 2**).



**Figure 2:** Laparoscopic view. The cecum (C) is seen behind the stomach (S) in the lesser sac, approached from the greater gastric curvature.



The posterior surface of the stomach was exposed depicting an obstructed, herniated, and distended caecal volvulus, through the Winslow's Hiatus. A new attempt of hernia reduction was made from this approach without success. As reduction could not be achieved by simple traction, the decision to decompress the colon was made in order to ease the devolvulation. An intentional punctiform enterotomy and a controlled aspiration was performed to evacuate the intestinal content. This maneuver allowed a successful reduction of the hernia, returning the cecum to its normal anatomical position.

Evidence of wall suffering such as color change and edema plus the impossibility of closing up the

site of drainage, led to the decision of proceeding with a laparoscopic right colectomy. It was performed with a mechanical side-to-side anastomosis, and the entire process unfolded without any complications.

Even though no macroscopical leaks of intestinal content were noticed during the procedure, the patient developed abdominal collections due to cavity contamination, which required percutaneous drainage in the postoperative period.

The patient showed favorable progress and was discharged within two weeks.

## Discussion

Hernia through Winslow's hiatus represents a rare entity, with an estimated incidence between 0.5% and 3.5% of all intra-abdominal hernias<sup>(1-3)</sup>. Its preoperative diagnosis is challenging due to the variability of symptoms, which can be nonspecific and mimic other gastrointestinal diseases<sup>(5)</sup>.

FWH can present with a wide clinical spectrum, from mild symptoms such as dyspepsia and intermittent abdominal pain<sup>(6)</sup> to acute abdomen due to intestinal obstruction or intestinal ischemia<sup>(7)</sup>. The severity of the pain is related to the presence of bowel strangulation with subsequent necrosis<sup>(3)</sup>.

In the presented case, the patient's symptoms included severe abdominal pain and nausea, compatible with intestinal obstruction. This presentation is similar to that described in other cases reported in the literature<sup>(8,4)</sup>.

Abdominal computed tomography played a crucial role in the diagnosis of the internal hernia of the cecum in this case. The presence of the "whirl sign" on CT is highly suggestive of this pathology, especially in small bowel cases that includes mesentery<sup>(9,10)</sup>.

As for surgical management, laparoscopy has become the preferred modality for the treatment of foramen of Winslow hernias due to its advantages in terms of less surgical trauma, lower morbidity, and faster recovery<sup>(11-13)</sup>.

While certain surgeons resist the idea of closing the foramen because of the potential severe drawbacks like portal vein thrombosis or harm to the portal vein, hepatic artery, or bile ducts, there are those who support closure but advocate for careful consideration. The debate over the effectiveness of this preventive action may be warranted as there is currently no evidence regarding recurrent herniation. Fixation of the





hypermobile colon to the parietal peritoneum or cecopexy to the lateral abdominal wall may be an alternative, although there is not enough evidence<sup>(4)</sup>.

In the presented case, the patient underwent a successful laparoscopic right colectomy due to signs of non-viable colon after reduction. No closure of the foramen was decided.

## Conclusión

Internal hernia of the cecum through the foramen of Winslow is a rare and potentially life-threatening condition that presents variable and non-specific symptoms. This case report demonstrates the optimal outcomes. Laparoscopic approach offers a minimally invasive approach with potential benefits in terms of reduced morbidity and faster recovery. The presented case adds to the existing literature by

It is important to emphasize that early surgical intervention is essential to prevent serious complications such as intestinal ischemia and perforation, which can have fatal consequences<sup>(10)</sup>.

successful application of laparoscopy in managing this challenging entity. Early diagnosis through imaging modalities like CT, recognizing the "whirl sign," and early surgical intervention are crucial for highlighting the feasibility and efficacy of laparoscopy in managing this rare but potentially serious condition.

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**Conflicto de interés:**

Ninguno.

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