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STRANGULATED INCISIONAL HERNIA DUE TO BOWEL OBSTRUCTION CAUSED BY GALL ILEUS IN THE LATE POSTOPERATIVE PERIOD OF BILIODIGESTIVE SURGERY DUE TO IATROGENIC INJURY OF THE BILIARY DUCT: CASE REPORT

HÉRNIA INCISIONAL ESTRANGULADA POR OBSTRUÇÃO INTESTINAL, CAUSADA POR ÍLEO BILIAR EM PÓS-OPERATÓRIO TARDIO DE CIRURGIA BILIODIGESTIVA POR LESÃO IATROGÊNICA DE VIA BILIAR: RELATO DE CASO

HERNIA INCISIONAL ESTRANGULADA DEBIDO A OBSTRUCCIÓN INTESTINAL CAUSADA POR ÍLEO BILIAR EN EL POSTOPERATORIO TARDÍO DE CIRUGÍA BILIODIGESTIVA POR LESIÓN IATROGÉNICA DE LA VÍA BILIAR: REPORTE DE CASO

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ABSTRACT

Case presentation: A 63-year-old man was admitted to the emergency room with severe abdominal pain for 1 week, associated with loss of appetite. He denied nausea, vomiting, and/or changes in bowel habits. He had undergone cholecystectomy 5 years earlier, which developed iatrogenic bile duct injury, requiring a new surgical approach for biliodigestive anastomosis during the same admission. With a suspected diagnosis of acute obstructive abdomen (AOA), an acute abdominal radiograph (X-ray) was performed, revealing distended bowel loops with an air-fluid level. Further investigation included abdominal computed tomography (CT), which revealed previous cholecystectomy with air-biliary obstruction, homogeneous splenomegaly, and distended bowel loops with an air-fluid level in the supraumbilical midline, consistent with acute obstructive abdomen due to an incarcerated hernia. Laboratory tests showed: TGO 119, TGP 199, FA 400, GGT 502, AM 243, CR 1.2. The patient underwent exploratory laparotomy. Intraoperatively, a strangulated incisional hernia was diagnosed due to obstructive acute abdomen caused by gallstone ileus. Band lysis was performed with enterectomy of the perforated segment of the strangulated hernia. The gallstone was removed from the biliopancreatic loop of the "roux-y", the biliodigestive anastomosis was re-performed, and the incisional hernia was surgically repaired. The patient was placed on a regular diet on postoperative day 2 and discharged on day 5. Discussion: The association between gallstone ileus and strangulated incisional hernia represents a rare but challenging presentation of obstructive acute abdomen. Gallstone ileus, characterized by the impaction of a gallstone in the intestinal tract, can occur even in cholecystectomized patients, especially those undergoing biliodigestive anastomoses or with spontaneous biliary-enteric fistulas. The presence of gallstones passing through the intestinal lumen can, in itself,

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generate obstruction in areas of reduced caliber, such as the terminal ileum. However, when a loop of bowel containing the stone generates intestinal obstruction, leading to incarceration of a previously existing incisional hernia—usually resulting from previous abdominal surgeries—there is an additional risk of strangulation, worsening the clinical picture and requiring urgent surgical intervention. A strangulated incisional hernia, in turn, compromises the vascular supply to the herniated bowel loop, which can rapidly progress to ischemia and necrosis. If the bowel loop impacted by a gallstone is located within this hernia, the risk of complications increases significantly. This overlapping mechanical factors—stone obstruction and herniated entrapment—can obscure the initial diagnosis, hindering early identification of gallstone ileus. Final remarks: The coexistence of both pathologies requires a high degree of clinical suspicion and prompt decision-making to avoid adverse outcomes. Although rare, post-cholecystectomy gallstone ileus is a possible condition, especially in the presence of late biliary fistulas or biliary anastomoses. Recognition of this pathophysiology is essential for early diagnosis and appropriate surgical management, avoiding complications such as intestinal necrosis or abdominal sepsis.

Keywords: Gallbladder Ileus. Biliodigestive Surgery. Iatrogenic Bile Duct Injury. Enterolithotomy. Enteric Fistula. Acute Obstructive Abdomen. Cholecystectomy. Abdominal Wall Hernia. Literature Review. Case Report.

RESUMO

Apresentação de caso: Homem, 63 anos, admitido no Pronto-socorro com quadro de dor abdominal há 1 semana, de forte intensidade, associado a hiporexia, nega náuseas ou vômitos e/ou alterações de hábitos intestinais. Apresentava cirurgia de colecistectomia há 5 anos, tendo evoluído com lesão iatrogênica de via biliar, necessitando de uma nova abordagem cirúrgica de anastomose biliodigestiva na mesma internação. Com hipótese diagnóstica de abdome agudo obstrutivo (AAO), foi realizada radiografia (RX) de abdome agudo, evidenciando alças intestinais distendidas com nível hidroaéreo. Prosseguindo com a investigação foi realizada tomografia computadorizada (TC) de abdome, evidenciando colecistectomia prévia com aerobilia, esplenomegalia homogênea, distensão de alças intestinais com nível hidroaéreo na linha mediana supra umbilical, compatível com abdome agudo obstrutivo por hérnia encarcerada. Exames laboratoriais demonstrando: TGO 119, TGP 199, FA 400, GGT 502, AM 243, CR 1,2. Foi submetido a laparotomia exploradora. No intraoperatório diagnosticado hérnia incisional estrangulada devido abdome agudo obstrutivo por íleo biliar, realizado lise de bridas com enterectomia do segmento perfurado na hérnia estrangulada, retirado cálculo biliar da alça bilio-pancreática do “y roux”, refeito anastomose biliodigestiva, realizado correção cirúrgica de hérnia incisional. Recebeu dieta no 2° dia de pós-operatório e alta no 5° dia. Discussão: A associação entre íleo biliar e hérnia incisional estrangulada representa uma rara, mas desafiadora, apresentação de abdome agudo obstrutivo. O íleo biliar, caracterizado pela impactação de um cálculo biliar no trato intestinal, pode ocorrer mesmo em pacientes colecistectomizados, especialmente aqueles submetidos a anastomoses biliodigestivas ou portadores de fístulas bilioentéricas espontâneas. A presença de cálculos biliares transitando pelo lúmen intestinal pode, por si só, gerar obstrução em pontos de calibre reduzido, como o íleo terminal. Entretanto, quando uma alça intestinal contendo o cálculo gera obstrução intestinal, levando ao encarceramento da hérnia incisional previamente existente — geralmente resultante de cirurgias abdominais anteriores — há risco adicional de estrangulamento, agravando o quadro clínico e exigindo intervenção cirúrgica urgente. A hérnia incisional estrangulada, por sua vez, compromete o suprimento vascular da alça intestinal herniada, podendo evoluir rapidamente para isquemia

e necrose. Se a alça intestinal impactada por um cálculo biliar se localizar dentro dessa hérnia, o risco de complicações aumenta significativamente. Essa sobreposição de fatores mecânicos — obstrução por cálculo e aprisionamento por hérnia — pode mascarar o diagnóstico inicial, dificultando a identificação precoce do íleo biliar. Comentários finais: A coexistência de ambas as patologias demanda alto grau de suspeição clínica e rápida tomada de decisão, visando evitar evolução desfavorável. Embora raro, o íleo biliar pós-colecistectomia é uma condição possível, especialmente na presença de fístulas biliointestinais tardias ou anastomoses biliares. O reconhecimento dessa fisiopatologia é essencial para diagnóstico precoce e manejo cirúrgico adequado, evitando complicações como necrose intestinal ou sepse abdominal.

Palavras-chave: Íleo Biliar. Cirurgia Biliodigestiva. Lesão Iatrogênica de Via Biliar. Enterolitotomia. Fístula Entérica. Abdome Agudo Obstrutivo. Colecistectomia. Hernia de Parede Abdominal. Revisão de Literatura. Relato de Caso.

RESUMEN

Presentación del caso: Un hombre de 63 años ingresó a la sala de emergencias con dolor abdominal severo durante 1 semana, asociado con pérdida de apetito. Negó náuseas, vómitos y/o cambios en los hábitos intestinales. Se había sometido a una colecistectomía 5 años antes, que desarrolló una lesión iatrogénica de la vía biliar, requiriendo un nuevo abordaje quirúrgico para la anastomosis biliodigestiva durante el mismo ingreso. Con un diagnóstico sospechado de abdomen obstructivo agudo (AOA), se realizó una radiografía abdominal aguda (rayos X), revelando asas intestinales distendidas con un nivel hidroaéreo. La investigación adicional incluyó una tomografía computarizada (TC) abdominal, que reveló colecistectomía previa con obstrucción hidroaérea, esplenomegalia homogénea y asas intestinales distendidas con un nivel hidroaéreo en la línea media supraumbilical, consistente con abdomen obstructivo agudo debido a una hernia incarcerada. Las pruebas de laboratorio mostraron: TGO 119, TGP 199, FA 400, GGT 502, AM 243, CR 1.2. Se le realizó una laparotomía exploratoria. Durante la operación, se diagnosticó una hernia incisional estrangulada debido a un abdomen agudo obstructivo por íleo biliar. Se realizó lisis de banda con enterectomía del segmento perforado en la hernia estrangulada, se extrajo el cálculo biliar del asa biliopancreática del "roux-y", se rehizo la anastomosis biliodigestiva y se realizó la reparación quirúrgica de la hernia incisional. Recibió dieta el segundo día postoperatorio y fue dado de alta el quinto día. Discusión: La asociación entre íleo biliar y hernia incisional estrangulada representa una presentación rara pero desafiante de abdomen agudo obstructivo. El íleo biliar, caracterizado por la impactación de un cálculo biliar en el tracto intestinal, puede ocurrir incluso en pacientes colecistectomizados, especialmente en aquellos sometidos a anastomosis biliodigestivas o con fístulas bilioentéricas espontáneas. La presencia de cálculos biliares que atraviesan la luz intestinal puede, por sí sola, generar obstrucción en zonas de calibre reducido, como el íleon terminal. Sin embargo, cuando un asa intestinal que contiene el cálculo genera obstrucción intestinal, lo que lleva a la incarceración de una hernia incisional preexistente (generalmente resultante de cirugías abdominales previas), existe un riesgo adicional de estrangulación, lo que empeora el cuadro clínico y requiere una intervención quirúrgica urgente. Una hernia incisional estrangulada, a su vez, compromete el suministro vascular del asa intestinal herniada, lo que puede progresar rápidamente a isquemia y necrosis. Si el asa intestinal impactada por un cálculo biliar se encuentra dentro de esta hernia, el riesgo de complicaciones aumenta significativamente. Esta superposición de factores mecánicos (obstrucción litiásica y atrapamiento herniario) puede enmascarar el diagnóstico inicial, dificultando la identificación

temprana del íleo biliar. Comentarios finales: La coexistencia de ambas patologías requiere un alto grado de sospecha clínica y una rápida toma de decisiones para evitar resultados desfavorables. Aunque poco frecuente, el íleo biliar poscolecistectomía es una posible afección, especialmente en presencia de fístulas biliares tardías o anastomosis biliares. El reconocimiento de esta fisiopatología es esencial para el diagnóstico temprano y el manejo quirúrgico adecuado, evitando complicaciones como la necrosis intestinal o la sepsis abdominal.

Palabras clave: Íleo Biliar. Cirugía Digestiva Biliar. Lesión Iatrogénica de la vía Biliar. Enterolitotomía. Fístula Entérica. Abdomen Obstructivo Agudo. Colecistectomía. Hernia de la Pared Abdominal. Revisión Bibliográfica. Informe de Caso.

1 INTRODUCTION

Acute obstructive abdomen is a surgical emergency characterized by partial or complete interruption of the passage of intestinal contents, leading to clinical manifestations such as diffuse abdominal pain, distension, nausea, vomiting, and cessation of feces and flatus. This condition represents one of the main causes of hospitalization for acute abdomen in urgent and emergency services, requiring immediate clinical and surgical evaluation to avoid serious complications, such as ischemia or intestinal necrosis. Studies show that about 15% to 20% of acute abdominal conditions treated in emergency rooms are caused by intestinal obstruction. The causes vary according to the age group, clinical condition and surgical history of the patients. Postoperative bowel adhesions are the main cause in adults (50-70%), while incarcerated hernias (10-15%), intestinal neoplasms (10-20%), volvulus (3-5%) and biliary ileus (1-4%) are also relevant etiologies (SAKORAFAS et al., 2005; REISNER & COHEN, 1994; FERNANDES et al, 2017; COPELAND, 2012).

The main risk factors associated with the development of acute obstructive abdomen include: history of previous abdominal surgeries, untreated hernias, inflammatory bowel diseases, neoplasms, advanced age, and chronic biliary pathologies (SILVA; SANTOS, 2017).

Abdominal wall hernias, such as incisional hernias, account for about 10% to 15% of cases of acute bowel obstruction. When complicated by entrapment or strangulation, they become direct mechanical causes of OA. In these situations, intestinal contents are trapped in the hernial sac, resulting in distension, ischemia, and risk of necrosis, configuring a situation of surgical urgency. In this context, symptoms include localized abdominal pain in the region of the hernia, abdominal distension, frequent vomiting, stopping the elimination of flatus and feces, peritonitis (if there is ischemia, necrosis and intestinal perforation). As imaging tests, simple abdominal X-rays can be used to observe alarm signs (Pneumoperitoneum) and signs of intestinal obstruction, and abdominal CT for better visualization of the condition. (MAINGOT, 2013).

Biliary ileum is a rare cause of mechanical bowel obstruction, accounting for approximately 1% to 4% of cases. It occurs by the migration of gallstones through a cholecystoenteric fistula, usually impacting the ileocecal valve. Symptoms are abdominal pain and distension, bilious nausea and vomiting, arrest of flatus and feces elimination, dehydration, and tachycardia. The diagnosis consists of a simple abdominal X-ray where

Rigler's triad is observed: intestinal obstruction, air in the bile ducts and visualization of the stone (REISNER & COHEN, 1994).

Biliary ileum is more frequent in women, aged >60 years, with a history of chronic untreated cholelithiasis, presence of facilitating factors such as biliodigestive anastomosis, and presence of comorbidities (hypertension, obesity, diabetes). Abdominal hernias, on the other hand, are more frequent with some risk factors, such as smoking, obesity, diabetes, high blood pressure, advanced age, previous history of abdominal surgery, and have similar epidemiology in both sexes. (COPELAND, 2012).

The biliary ileum is classically associated with the presence of fistula between the gallbladder and the small intestine, which allows the passage of gallstones into the gastrointestinal tract. However, in patients who have previously undergone cholecystectomy or biliodigestive anastomosis, the occurrence of this condition is extremely rare. The formation of residual or recurrent stones and migration to the intestinal lumen through late fistulous pathways may explain such cases. The incidence of biliary ileus in cholecystectomized patients is very low, estimated at less than 0.5% of the cases reported in the literature (CLARK et al., 2001). These cases constitute important diagnostic and therapeutic challenges, given the previous surgical history and the nonspecific clinical presentation (LOPEZ MONCLUS et al, 2019).

The biliodigestive anastomosis creates a direct communication between the bile duct and the intestine — which, in theory, facilitates the transit of residual gallstones or those formed after surgery. Cases of post-anastomotic biliary ileus are extremely rare, but possible. The incidence was reported in isolated cases, with no consolidated rate in the literature. A case study published by Alencastro et al. (2013) reported a case of biliary ileum 3 years after biliodigestive anastomosis, reinforcing that the complication can appear late and without previous biliary symptoms.

Both clinical entities — complicated hernias and biliary ileum — share the characteristic of causing mechanical intestinal obstruction, differing mainly in the mechanism of installation of the obstruction. While in hernias there is an anatomical failure of the abdominal wall with exteriorization of the contents, in the biliary ileum the pathological process occurs internally, by migration and stone impaction. In addition, in more complex cases, as described in clinical reports, there may be an association between the two conditions, such as when a patient with ileus also has an incarcerated hernia, aggravating

the intestinal obstruction and requiring an even more precise and rapid surgical approach. (ALENCASTRO, 2013).

2 OBJECTIVES

2.1 GENERAL OBJECTIVE

- OBJECTIVE: To report the case of acute obstructive abdomen caused by a biliary ileum in a patient who underwent biliodigestive surgery after cholecystectomy surgery who suffered an iatrogenic lesion of the bile duct, leading to a strangulated incisional hernia, with the purpose of describing an individual circumstance of the patient, addressing the sequence of events, clinical history, as well as exams and other particular information relevant to the case.

2.2 SPECIFIC OBJECTIVES

- To address the pathophysiology of the biliary ileum in a cholecystectomized patient, as well as what led to obstruction and consequent strangulation of the preexisting incisional hernia.
- To present epidemiological data found regarding the pathology.
- Discuss the relationship between the patient's delayed biliodigestive and the development of the biliary ileum, as well as strangulation of the incisional hernia.
- Present clinical data of the patient.
- Discuss possible treatment alternatives.
- Expose the relevance of the theme and the need for further studies in the area.

3 CLINICAL CASE

A 63-year-old man, admitted to the emergency room with severe abdominal pain for 1 week, with bulging in the region of the previous surgical scar in the median line, with phlogistic signs at the site, associated with hyporexia, denies nausea or vomiting and/or changes in bowel habits. He has a personal history of systemic arterial hypertension and a history of cholecystectomy surgery for 5 years, having evolved with iatrogenic lesion of the bile duct, requiring a new surgical approach of biliodigestive anastomosis in the same hospitalization. With the diagnostic hypothesis of acute obstructive abdomen (OA), the diagnostic investigation continued with an X-ray (X-ray) of the acute abdomen.

Figure 1

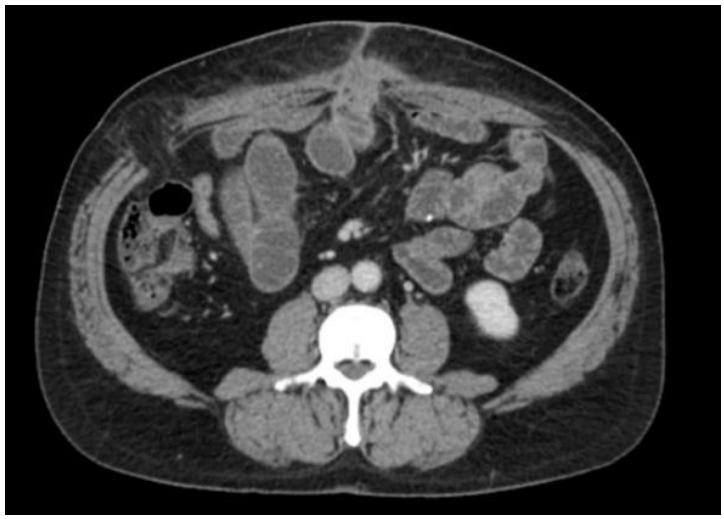
Abdominal X-ray showing the presence of an air-fluid level

Source: The author/2024

A computed tomography (CT) scan of the abdomen was requested to confirm the initial diagnosis, as well as to evidence the cause, and the examination observed previous cholecystectomy with aerobilia, homogeneous splenomegaly, distension of the intestinal loops with a vaso-air level in the supra-umbilical midline, compatible with an acute obstructive abdomen due to an incarcerated hernia (Figure 2); laboratory tests were requested: AST 119, AST 199, FA 400, GGT 502, AM 243, CR 1.2, and other tests without alterations.

Figure 2

CT scan of the abdomen showing the presence of an incarcerated hernia at the level of the midline, with the presence of blurring in the adjacent planes, which shows an area of loop suffering, as well as liquid distension of intestinal loops from small to upstream, compatible with intestinal obstruction caused by incarcerated hernia



Source: The author/2024

Surgical treatment was indicated, and the patient underwent exploratory laparotomy. In the intraoperative period, a strangulated incisional hernia was diagnosed due to an acute abdomen obstructive by biliary ileum, lysis of the bridles was performed with enterectomy of the perforated segment in the strangulated hernia present in the bilio-pancreatic loop of the *Roux-en-Roux*, biliary calculus was removed, biliodigestive anastomosis was redone, and surgical correction of the incisional hernia was performed (Figure 3). The patient was fed on the 2nd postoperative day and discharged on the 5th day. He returned to the outpatient clinic for follow-up and evaluation of the anatomopathological examination. The patient evolved well, stable, with no complaints. The result of the post-surgical biopsy concluded that the ileum segment presented a chronic inflammatory process, fibrosis and formation of a path with fistula, chronic serositis with areas of steatonecrosis.

Figure 3

The figura identifies a surgical specimen (macroscopy), a product of enterectomy, due to a strangulated hernia, laterally in the presence of a stone with prolene wire

Source: The author/2024

4 DISCUSSION

Incarcerated hernias are the second major etiology of ASA in adults, behind post-surgical intestinal bridle and equivalent to intestinal neoplasms (SAKORAFAS et al., 2005; REISNER & COHEN, 1994; FERNANDES et al, 2017; COPELAND, 2012), this data confirms our study, where the patient in question has the second highest etiology of ASA.

The incidence of biliary ileum after biliodigestive anastomosis or cholecystectomy is very rare, estimated at <0.5% (REISNER & COHEN, 1994), and biliary ileum is more

commonly found before cholecystectomy or biliodigestive anastomosis, such data are partially different from our study, demonstrating that in this case there was no complication of biliary ileum before the surgical procedures performed, however, it demonstrates a rare event that is possible in the literature, the biliary ileum after surgical procedures.

The epidemiology of incisional hernias has a 20% predilection for females (SIMONS MP et al, 2009; FITZGIBBONS RJ et al, 2015), this data differs from our study, as the patient in question is male,

The risk factors for the incidence of incisional hernias are previous surgical procedures, advanced age, associated comorbidities (diabetes, hypertension, obesity) (MAINGOT R, 2013; REISNER & COHEN, 1994), such data are found in our study, since the patient is over 60 years old, with comorbidities such as hypertension and diabetes, previous surgical procedures (cholecystectomy and biliodigestive anastomosis).

The clinical picture of AASO follows a clinical pattern characterized by nausea and vomiting, arrest of the elimination of facts and feces, abdominal distension. Unlike the usual, our study demonstrated patients with nonspecific symptoms of hyporexia and a decline in general condition. However, on physical examination, the presence of bulging in the region of previous surgical wound was found, which is very characteristic of a diagnosis of incisional hernia, found in the literature (COPELAND, 2012).

Computed Tomography is an excellent test to diagnose and etiology ASA, incisional hernias and biliary ileum, as seen in the literature, with good sensitivity and specificity, but as seen in our study, the diagnosis of biliary ileus together with strangulated hernia was only possible during the intraoperative period and not with imaging tests (CLARK et al, 2012).

In general, biliary ileum occurs when a fistula forms between the biliary tract and the gastrointestinal tract, often a cholecystoduodenal fistula. In cholecystectomy patients, the absence of the gallbladder does not fully preclude this mechanism, as the presence of residual stones in the main bile duct, associated with chronic pressure and local inflammation, can lead to the formation of a spontaneous fistula between the bile duct and the small intestine (mainly duodenum or jejunum). (REISNER & COHEN, 1994).

Another possible scenario occurs in patients who, after complicated cholecystectomy, have undergone a biliodigestive anastomosis (such as a hepaticojejunostomy). In these cases, the surgical communication between the bile duct and the intestine favors the transit of residual stones — or new stones formed by biliary stasis and bacterial colonization — to the digestive tract. If a stone of considerable size travels through the digestive tract and

impacts, usually on the terminal ileum (segment with a smaller luminal diameter), it causes mechanical intestinal obstruction. (ALENCASTRO et al, 2013).

The abdominal surgical access required for biliodigestive anastomosis often involves wide incisions and extensive manipulation of the abdominal wall. This increases the risk of incisional hernia formation, especially in patients with predisposing factors such as obesity, surgical wound infection, or malnutrition. If this hernia becomes strangulated (compromises the vascular supply of the herniated contents), there is an imminent risk of ischemia and perforation, configuring a severe condition of acute obstructive abdomen. (PEREIRA et al, 2016).

The association between biliary ileus and strangulated incisional hernia represents a rare but challenging presentation of acute obstructive abdomen. Biliary ileum, characterized by the impaction of a gallstone in the intestinal tract, can occur even in cholecystectomized patients, especially those undergoing biliodigesive anastomoses or those with spontaneous bilioenteric fistulas. The presence of gallstones transiting the intestinal lumen can, by itself, generate obstruction in points of reduced caliber, such as the terminal ileum. However, when an intestinal loop containing the stone migrates to a previously existing incisional hernia — usually resulting from previous abdominal surgeries — there is an additional risk of entrapment and strangulation, aggravating the clinical condition and requiring urgent surgical intervention. (ALENCASTRO et al, 2013).

Strangulated incisional hernia, in turn, compromises the vascular supply of the herniated intestinal loop, and can quickly progress to ischemia and necrosis. If the intestinal loop impacted by a gallstone is located within this hernia, the risk of complications increases significantly. This overlap of mechanical factors—stone obstruction and hernia entrapment—can mask the initial diagnosis, making it difficult to identify the ileum early (COPELAND, 2012).

5 CONCLUSION

Acute obstructive abdomen remains one of the main surgical emergencies in medical practice, requiring rapid diagnosis and an efficient therapeutic approach to reduce morbidity and mortality. Early identification of clinical signs, associated with knowledge of the most prevalent etiologies — such as adhesions, hernias, and neoplasms — is essential for adequate management, especially in emergency room settings, where demand is intense and time is a critical factor.

In addition, biliary ileum, although rare, stands out as an important differential diagnosis, especially in elderly patients or those with a history of biliary disease. Its occurrence in individuals undergoing cholecystectomy or biliodigestive anastomosis reinforces the need for clinical surveillance even after corrective procedures.

Strangulated incisional hernia, in turn, compromises the vascular supply of the herniated intestinal loop, and can quickly progress to ischemia and necrosis. If the intestinal loop impacted by a gallstone is located within this hernia, the risk of complications increases significantly. This overlap of mechanical factors—stone obstruction and hernia entrapment—can mask the initial diagnosis, making it difficult to identify the ileum early

Appropriate management requires a careful surgical approach, usually with enterectomy and hernia repair, as well as washing of the abdominal cavity in cases of associated peritonitis. The coexistence of both pathologies requires a high degree of clinical suspicion and rapid decision-making, in order to avoid unfavorable evolution. (REISNER & COHEN, 1994).

Therefore, although rare, postcholecystectomy biliary ileum is a possible condition, especially in the presence of late biliontestinal fistulas or biliary anastomoses. The recognition of this pathophysiology is essential for early diagnosis and appropriate surgical management, avoiding complications such as intestinal necrosis or abdominal sepsis. (LOPEZ MONCLUS, 2019).

REFERENCES

Afferent loop obstruction induced by gallstone ileus after Whipple procedure. (2025). PubMed. https://pubmed.ncbi.nlm.nih.gov/?term=gallstone+ileus+whipple+afferent+loop

Alencastro, L. F., et al. (2013). Abdome agudo por obstrução intestinal causada por íleo biliar. Revista do Colégio Brasileiro de Cirurgiões, 40(1), 82–84. https://revista.cbcc.org.br

Amaral, V. M., Antunes, R. M., Lima, V. F., & Vidal, P. A. (2024). Íleo biliar: Fisiopatologia, manifestações clínicas e abordagens cirúrgicas. Brazilian Journal of Health Review, 7(5), e73058. https://doi.org/10.34119/bjhrv7n5-241

An unusual case of gallstone ileus 35 years post-cholecystectomy masked by an incisional hernia. (2024). Journal of Surgical Case Reports. https://pmc.ncbi.nlm.nih.gov/articles/PMC11102780/

Ayantunde, A. A., & Agrawal, A. (2007). Gallstone ileus: Diagnosis and management. World Journal of Surgery, 31(6), 1292–1297.

Bellizzi, A. S., Souza, L. M. O. de, Alfonso, C. N. R., D'Oliveira, V. X., Oliveira Júnior, I. R. de, Camargo, G. M., Thomé, H., & Akamatsu, P. A. (2024). Íleo biliar: Causa incomum de

obstrução intestinal alta, revisão integrativa da literatura. Brazilian Journal of Health Review, 7(3), e70056. https://doi.org/10.34119/bjhrv7n3-197

Bowel obstruction secondary to gallstone ileus within an inguinoscrotal hernia. (2021). BJR Case Reports. https://pmc.ncbi.nlm.nih.gov/articles/PMC8749400/

Clark, G. W., et al. (2001). Gallstone ileus: A continuing challenge. American Surgeon, 67(12), 1183–1187.

Comparison between incidence of incisional hernia in laparoscopic cholecystectomy and by single port. (2018). Arquivos Brasileiros de Cirurgia Digestiva. https://www.scielo.br/j/abcd/a/RT5s9XVV4Tvx9BvY6WBnhwP/

Comprehensive treatment of gallstone ileus associated with giant incisional hernia with loss of domain. (2024). Revista Argentina de Cirugía. https://revista.aac.org.ar/index.php/RevArgentCirug/article/view/685

Copeland, E. M. (2012). The textbook of surgery (18.ª ed.). Elsevier.

Estratégia Medicina. (s.f.). Abdome agudo obstrutivo: Causas, diagnóstico e conduta. https://med.estrategia.com

Felix, M. M., & Thomaz, J. C. (2018). Complicações de hérnias abdominais: Abordagem clínica e cirúrgica. Revista Brasileira de Cirurgia, 105(2), 44–50.

Fernandes, J. M., et al. (2017). Obstrução intestinal: Avaliação clínica e conduta cirúrgica. Revista do Colégio Brasileiro de Cirurgiões, 44(3), 211–217.

Ferreira, F. G., et al. (2019). Tratamento conservador de íleo biliar em paciente idoso: Relato de caso. Revista de Medicina e Saúde de Brasília, 8(2), 140–146. https://portalrevistas.ucb.br/index.php/rmsbr/article/view/10957

Fraga, J. B. P., Souza, T. G. S., Nascimento, A. C. R., Moraes, E. O., & Vieira, F. J. (2008). Íleo biliar: Relato de caso. HU Revista, 34(4), 141–145.

Gallstone ileus 30 years after cholecystectomy and hepaticojejunostomy. (2024). PubMed. https://pubmed.ncbi.nlm.nih.gov/38087485/

Gallstone ileus: Case report and literature review. (2019). World Journal of Gastroenterology. https://pubmed.ncbi.nlm.nih.gov/?term=gallstone+ileus+literature+review+2019

Íleo biliar — uma complicação da doença calculosa da vesícula biliar. (2010). Revista Brasileira de Geriatria e Gerontologia. https://www.scielo.br/j/rbgg/a/PRZxKRKKPGD8gj4sXmyWT6Q/

Lesão iatrogênica de vias biliares. (2005). Revista do Colégio Brasileiro de Cirurgiões. https://www.scielo.br/j/rcbc/a/JDgRWVhTqFdSsmSSMtpwnjG/

López-Monclús, J., et al. (2019). Gallstone ileus: Diagnostic and therapeutic options. Revista Española de Enfermedades Digestivas, 111(1), 31–34.

Maingot, R. (2013). Abdominal operations (12.ª ed.). McGraw-Hill.

Patterson, J. W., et al. (2023). Acute abdomen. En StatPearls. StatPearls Publishing.

Pereira, R. S., et al. (2016). Hérnias da parede abdominal: Fatores de risco e prevenção. Jornal Brasileiro de Cirurgia, 102(3), 211–216.

Rabie, M. A., & Sokker, A. (2019). Cholecystolithotomy, a new approach to reduce recurrent gallstone ileus. Acute Medicine & Surgery, 6(2), 95–100.

Reisner, R. M., & Cohen, J. R. (1994). Gallstone ileus: A review of 1001 reported cases. American Surgeon, 60(6), 441–446.

Reyes-Morales, J. M., & Hernández-García, L. K. (2023). Íleo biliar: Un reto diagnóstico y terapéutico. Presentación de un caso clínico. Revista Médica del Instituto Mexicano del Seguro Social, 61(1), 106–110.

Sanar Medicina. (s.f.). Obstrução intestinal: Causas e abordagem inicial. https://www.sanarmed.com

Sakorafas, G. H., et al. (2005). Small bowel obstruction due to adhesions: Diagnostic and therapeutic considerations. World Journal of Gastroenterology, 11(31), 4793–4797.

Silva, D. F., & Santos, L. B. (2017). Abdome agudo obstrutivo: Revisão clínica e cirúrgica. Revista de Medicina da Universidade Federal de São Paulo, 25(1), 35–41.

Surgical management of gallstone ileus after one-anastomosis gastric bypass: A case report. (2023). World Journal of Gastrointestinal Surgery, 15(9), 2083. https://www.wjgnet.com/1948-9366/full/v15/i9/2083.htm