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ACUTE CHOLANGITIS AND BILIARY PANCREATITIS SECONDARY TO LATE PRIMARY CHOLEDOCHOLITHIASIS 40 YEARS AFTER OPEN CHOLECYSTECTOMY: A CASE REPORT

**COLANGITIS AGUDA Y PANCREATITIS BILIAR SECUNDARIAS A
COLEDOKOLITIASIS PRIMARIA TARDÍA 40 AÑOS DESPUÉS DE UNA
COLECISTECTOMÍA ABIERTA: REPORTE DE CASO**

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Acute Cholangitis and Biliary Pancreatitis Secondary to Late Primary Choledocholithiasis 40 Years After Open Cholecystectomy: A Case Report

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ABSTRACT

Primary common bile duct stones after cholecystectomy are uncommon and may present with diagnostic uncertainty when they occur decades after surgery. A 75-year-old woman with diabetes, hypertension, hypothyroidism, and open cholecystectomy 40 years earlier presented with severe epigastric pain radiating in a belt-like pattern, fever, nausea, and bilious vomiting. Laboratory findings showed leukocytosis, direct hyperbilirubinemia, cholestatic enzyme elevation, and elevated amylase and lipase. Computed tomography demonstrated common bile duct dilation with abrupt distal tapering. She was diagnosed with mild acute pancreatitis and moderate acute cholangitis. Endoscopic retrograde cholangiopancreatography demonstrated a dilated biliary tree with two 8-millimeter filling defects; sphincterotomy and balloon sweeps achieved extraction of two stones. She improved clinically and biochemically and was discharged without post-procedure complications. This case highlights that primary choledocholithiasis remains a relevant differential diagnosis even four decades after cholecystectomy.

Keywords: choledocholithiasis; post-cholecystectomy; cholangitis; biliary pancreatitis; endoscopic retrograde cholangiopancreatography; case report

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Colangitis Aguda y Pancreatitis Biliar Secundarias a Coledocolitiasis Primaria Tardía 40 Años Después de una Colecistectomía Abierta: Reporte de Caso

RESUMEN

Las litiasis primarias del colédoco después de una colecistectomía son poco frecuentes y pueden generar incertidumbre diagnóstica cuando aparecen décadas después de la cirugía. Se presenta el caso de una mujer de 75 años con diabetes, hipertensión, hipotiroidismo y antecedente de colecistectomía abierta 40 años antes, quien acudió por dolor epigástrico intenso con irradiación en cinturón, fiebre, náusea y vómito biliar. Los estudios de laboratorio mostraron leucocitosis, hiperbilirrubinemia directa, elevación de enzimas colestásicas y elevación de amilasa y lipasa. La tomografía computarizada demostró dilatación del colédoco con afilamiento distal abrupto. Se diagnosticó pancreatitis aguda leve y colangitis aguda moderada. La colangiopancreatografía retrógrada endoscópica evidenció dilatación de la vía biliar con dos defectos de llenado de 8 milímetros; se realizó esfinterotomía y barridos con balón, logrando la extracción de dos litos. La paciente presentó mejoría clínica y bioquímica, y fue egresada sin complicaciones posteriores al procedimiento. Este caso destaca que la coledocolitiasis primaria continúa siendo un diagnóstico diferencial relevante incluso cuatro décadas después de una colecistectomía.

Palabras clave: coledocolitiasis; postcolecistectomía; colangitis; pancreatitis biliar; colangiopancreatografía retrógrada endoscópica; reporte de caso.

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INTRODUCTION

Common bile duct stones usually arise from migration of gallbladder stones, but stones detected two or more years after cholecystectomy are generally classified as primary common bile duct stones [1]. Late post-cholecystectomy choledocholithiasis is uncommon, and intervals approaching 40 years have only rarely been described [2]. When obstruction occurs, the clinical spectrum may include jaundice, acute cholangitis, and acute biliary pancreatitis. We report a case of late primary choledocholithiasis presenting 40 years after open cholecystectomy with both moderate acute cholangitis and mild biliary pancreatitis, successfully treated by endoscopic retrograde cholangiopancreatography.

Case presentation

A 75-year-old woman presented to the emergency department with epigastric pain. Her symptoms began 11 days before admission and worsened the day before evaluation, reaching 10/10 intensity with belt-like radiation, unquantified fever, nausea, and five episodes of bilious vomiting. She denied choloria and acholia. Her history included type 2 diabetes mellitus, arterial hypertension, hypothyroidism, and open cholecystectomy 40 years earlier. She denied alcohol use, previous pancreatitis, previous cholangitis, and previous endoscopic retrograde cholangiopancreatography.

On admission, she was hemodynamically stable and afebrile. Laboratory tests showed leukocytosis of 31.45×10^3 per microliter with 90% neutrophils and 36% bands, total bilirubin 3.99 milligrams per deciliter, direct bilirubin 3.05 milligrams per deciliter, aspartate aminotransferase 307 units per liter, alanine aminotransferase 345 units per liter, alkaline phosphatase 920 units per liter, gamma-glutamyl transferase 95 units per liter, amylase 955 units per liter, and lipase 2112 units per liter. Triglycerides were 99 milligrams per deciliter and calcium was 10 milligrams per deciliter. Contrast-enhanced computed tomography showed common bile duct dilation up to 13 millimeters in the supraduodenal portion and 9.2 millimeters in the intrapancreatic portion, with abrupt distal tapering and no visible stones. Mild acute pancreatitis and moderate acute cholangitis were diagnosed according to the revised Atlanta classification and Tokyo Guidelines 2018, respectively [3,4].

Her abdominal pain resolved after emergency department analgesia; therefore, early oral intake was initiated as tolerated. Intravenous hydration was started without an initial bolus using lactated Ringer/Hartmann solution at 1.5 milliliters per kilogram per hour, approximately 86 milliliters per hour



based on an adjusted body weight of 57 kilograms, following a moderate goal-directed strategy aligned with the WATERFALL protocol and contemporary acute pancreatitis guidance [9-11]. After clinical improvement, preserved urine output, and adequate oral tolerance, the infusion rate was decreased to 57 milliliters per hour the next day. Because she remained hemodynamically stable, antimicrobial therapy was started with ceftriaxone plus metronidazole while endoscopic source control was arranged. She also received gastric protection and glycemic control.

Endoscopic retrograde cholangiopancreatography was performed on May 4, 2026. The common bile duct was dilated to 10 millimeters. Endosonographic assessment identified an 8-millimeter stone, and cholangiography showed intrahepatic and extrahepatic biliary dilation with two 8-millimeter filling defects. Biliary cannulation was achieved with a sphincterotome and hydrophilic guidewire. Sphincterotomy was performed, followed by balloon catheter sweeps with extraction of two stones. Final fluoroscopy showed adequate drainage of contrast into the duodenum. The procedure lasted 23 minutes and was completed without apparent complications.

The patient improved clinically and biochemically. On May 5, she tolerated oral diet, had preserved urine output, passed flatus, and had no abdominal pain or peritoneal signs. White blood cell count decreased to 11.0×10^3 per microliter, total bilirubin to 0.8 milligrams per deciliter, direct bilirubin to 0.6 milligrams per deciliter, aspartate aminotransferase to 56 units per liter, and alanine aminotransferase to 142 units per liter. No bleeding, perforation, or pancreatitis after endoscopic retrograde cholangiopancreatography was documented. She was discharged after two days of hospitalization with oral antimicrobial therapy, and outpatient follow-up was scheduled at three weeks.

DISCUSSION

This case illustrates a delayed biliopancreatic presentation of presumed primary choledocholithiasis four decades after open cholecystectomy. The long interval, absence of previous biliary events, lack of prior endoscopic retrograde cholangiopancreatography, and endoscopic confirmation of two bile duct stones support primary ductal stone formation rather than retained stones. The main limitation is the absence of stone composition analysis; therefore, the diagnosis is based on timing, clinical context, and endoscopic findings rather than biochemical stone characterization.



Primary duct stones are often linked to biliary stasis, ductal dilation, infection, advanced age, and altered biliary drainage [1,5]. In this patient, the presentation was clinically important because obstruction produced simultaneous acute cholangitis and biliary pancreatitis. The Tokyo Guidelines support early severity assessment and source control in acute cholangitis [4,6], while American Society for Gastrointestinal Endoscopy guidance supports endoscopic retrograde cholangiopancreatography as a therapeutic modality for choledocholithiasis, particularly when cholangitis is present [8]. The favorable response after sphincterotomy and balloon extraction, including rapid fall in leukocytes and bilirubin, confirms effective biliary decompression.

Fluid management was relevant because the patient had mild acute pancreatitis and advanced age with initial renal dysfunction. A moderate, goal-directed lactated Ringer strategy was selected without a bolus. This approach is supported by the WATERFALL study protocol and the final randomized trial, which compared early weight-based aggressive resuscitation with moderate goal-directed resuscitation and found that aggressive resuscitation increased fluid overload without improving clinical outcomes [9,10]. The 2024 American College of Gastroenterology guideline for acute pancreatitis also supports moderately aggressive fluid resuscitation with reassessment, reserving additional boluses for evidence of hypovolemia, and endorses early oral feeding in mild acute pancreatitis once tolerated [11].

Antimicrobial selection was also relevant from a stewardship perspective. Tokyo Guidelines 2018 recommend tailoring empirical therapy according to severity grade, acquisition setting, resistant-organism risk, and local susceptibility patterns; broad antipseudomonal therapy such as piperacillin/tazobactam is included among appropriate options but is not required in every hemodynamically stable, community-acquired case [7]. In this patient, marked leukocytosis alone did not mandate initial piperacillin/tazobactam because she had hemodynamic stability and prompt endoscopic decompression was planned. Ceftriaxone plus metronidazole was selected as empirical therapy, followed by definitive source control through sphincterotomy and extraction of both stones. After source control, the leukocyte count decreased rapidly from 31.45×10^3 per microliter, cholestatic parameters improved, and the patient was discharged on the second hospital day with oral antimicrobial therapy, without the need to escalate to piperacillin/tazobactam or complete an extended inpatient antimicrobial course.



Current guidance supports limiting antimicrobial duration to 4 to 7 days once biliary source control has been achieved, with longer courses reserved for selected situations such as specific bacteremia patterns or persistent anatomic problems [7].

CONCLUSION

Primary choledocholithiasis should remain in the differential diagnosis of biliary obstruction, cholangitis, and pancreatitis even decades after cholecystectomy. In elderly post-cholecystectomy patients, early biliary imaging and therapeutic endoscopic retrograde cholangiopancreatography can provide definitive diagnosis, source control, and rapid clinical improvement.

Declarations

Informed consent: Written informed consent was obtained from the patient for publication of this case report and the accompanying de-identified images.

Ethical approval: Institutional requirements should be verified before submission; single anonymized case reports are commonly exempt, but local confirmation is recommended.

Competing interests: The authors declare no competing interests.

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Author contributions: Osvaldo González Moreno contributed to diagnosis, treatment, data collection, and manuscript conceptualization. Estefani Miroslava Ruiz Vigueras contributed to data collection and manuscript drafting. Maria Fernanda Ramirez Velasco contributed to data collection. Francisco Javier Sánchez Vázquez contributed to clinical follow-up and data collection. Cheryl Zilahy Díaz Barrientos contributed to critical revision and final approval of the manuscript. José Miguel Espinoza González performed the endoscopic retrograde cholangiopancreatography and contributed procedural data. All authors reviewed and approved the final manuscript.

Data availability: All relevant clinical data are included in the article. Additional data are not publicly available to protect patient confidentiality.



Table 1. Clinical timeline.

Date or period	Clinical event
40 years before admission	Open cholecystectomy.
April 22, 2026	Onset of punctate epigastric pain.
May 2, 2026	Pain worsened to 10/10 with belt-like radiation, fever, nausea, and bilious vomiting.
May 3, 2026	Admission; mild acute pancreatitis, moderate acute cholangitis, and suspected choledocholithiasis.
May 4, 2026	Endoscopic retrograde cholangiopancreatography with sphincterotomy and extraction of two 8-millimeter common bile duct stones.
May 5, 2026	Clinical and biochemical improvement; discharge after two days of hospitalization.
3 weeks after discharge	Outpatient follow-up scheduled.

Table 2. Biochemical trend before and after endoscopic retrograde cholangiopancreatography.

Parameter	May 3, 2026	May 4, 2026	May 5, 2026
White blood cell count (x 10 ³ per microliter)	31.45	17.24	11.0
Neutrophils (%)	90	91	88
Bands (%)	36	31	11
Total bilirubin (milligrams per deciliter)	3.99	2.99	0.8
Direct bilirubin (milligrams per deciliter)	3.05	1.83	0.6
Aspartate aminotransferase (units per liter)	307	154	56
Alanine aminotransferase (units per liter)	345	225	142
Alkaline phosphatase (units per liter)	920	684	591
Gamma-glutamyl transferase (units per liter)	95	733	628
Amylase (units per liter)	955	Not reported	Not reported
Lipase (units per liter)	2112	Not reported	Not reported
Creatinine (milligrams per deciliter)	1.66	1.39	Not reported



Figure 1



De-identified endoscopic ultrasonography and endoscopic retrograde cholangiopancreatography procedural images. The study demonstrated biliary dilation and choledocholithiasis, followed by guidewire cannulation, sphincterotomy, balloon sweeps, and extraction of a common bile duct stone.

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