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Perihilar cholangiocarcinoma: case report and surgical approach

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Summary

Cholangiocarcinoma is a rare and aggressive malignant neoplasm originating from the epithelium of the bile ducts, affecting areas from the intrahepatic ducts to the distal portion of the biliary tract. Diagnosis is frequently delayed due to its nonspecific clinical presentation. We report the case of a 59-year-old female patient with epigastric and right hypochondrium pain for approximately one year, associated with postprandial nausea and vomiting, without jaundice or weight loss. Laboratory tests revealed a slight elevation of bilirubin, with tumor markers within normal limits. Computed tomography and magnetic resonance cholangiopancreatography demonstrated an infiltrative lesion in hepatic segment IV, with intraductal extension to the hepatic hilum, classified as Bismuth-Corlette IIIB. Liver biopsy confirmed moderately differentiated adenocarcinoma.

The patient underwent partial liver resection with lymphadenectomy of the hepatic pedicle, obtaining surgical margins free of neoplasia. Postoperative recovery was satisfactory. Surgical resection with curative intent remains the primary therapeutic modality when feasible, reinforcing the importance of adequate staging and multidisciplinary management.
Keywords: Cholangiocarcinoma. Biliary neoplasms. Liver surgery. Case report.

Abstract

Cholangiocarcinoma is a rare and aggressive malignant neoplasm arising from the biliary epithelium. Diagnosis is often delayed due to nonspecific symptoms. We report the case of a 59-year-old female presenting with epigastric and right upper quadrant pain for one year, associated with postprandial nausea and vomiting, without jaundice or weight loss. Laboratory tests showed mild hyperbilirubinemia and normal tumor markers. Computed tomography and magnetic resonance cholangiography revealed an infiltrative lesion in hepatic segment IV with intraductal extension involving the hepatic hilum, classified as Bismuth-Corlette IIIB. Liver biopsy confirmed moderately differentiated adenocarcinoma. The patient underwent partial hepatectomy with lymphadenectomy of the hepatic pedicle, achieving tumor-free margins. Postoperative recovery was uneventful. Surgical resection with curative intent remains the cornerstone of treatment when feasible.

Keywords: Cholangiocarcinoma. Biliary neoplasms. Liver surgery. Case report.

1. Introduction

Cholangiocarcinoma is a rare and aggressive malignant neoplasm originating from the epithelium of the bile ducts, which can originate from intrahepatic ducts to the distal portion of the biliary tract.

It is the second most frequent primary liver neoplasm and has an increasing incidence.

in recent decades, partly related to the improvement of diagnostic methods (CARINGI

et al., 2025; LIGUORI et al., 2025).

Although it has no defined etiology, it is associated with conditions that involve inflammation.

chronic biliary tract infections, such as primary sclerosing cholangitis, biliary tract cysts, parasitic infections,

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Chronic liver diseases, cholelithiasis, and hereditary syndromes (COLANGELO et al., 2025).

The clinical presentation is variable and depends on the tumor location, but is frequently...
Nonspecific. Abdominal pain, asthenia, nausea, and weight loss are common, while signs
Cholestatic seizures occur when there is obstruction of the common bile duct (LIGUORI et al., 2025).

Diagnostic investigation includes laboratory tests, tumor markers (CA 19-9, CEA).
and alpha-fetoprotein) and imaging methods. Triphasic contrast-enhanced computed tomography and
Magnetic resonance cholangiopancreatography (MRCP) is essential for assessing tumor extent and treatment planning.
surgical (CARINGI et al., 2025).

Treatment depends on the stage and location of the tumor. Surgical resection with
Clear margins remain the only curative option, with systemic therapies being reserved for other uses.
for selected cases or advanced disease (COLANGELO et al., 2025).

2. Theoretical Framework / Results

2.1 Classification and approach to cholangiocarcinoma

Cholangiocarcinoma can be classified as intrahepatic, perihilar, and distal, presenting
differences regarding etiology, clinical presentation, and prognosis. Perihilar tumors are
classified according to the Bismuth-Corlette method, based on the extent of involvement of the hepatic ducts.
(CARINGI et al., 2025).

Resectability depends on achieving a negative surgical margin (R0) and preservation.
of adequate remaining liver volume. In normal livers, a satisfactory amount is considered to be...
volume ÿ20–25%, while in steatotic livers or those undergoing chemotherapy, ÿ30–35%, and in
cirrhotic Child-Pugh A, ÿ40% (COLANGELO et al., 2025).

Surgical treatment of perihilar tumors is complex and often involves
Hepatectomy associated with resection of the extrahepatic biliary tract and lymphadenectomy of the pedicle.
hepatic (CARINGI et al., 2025).

3. Materials and Methods

Descriptive case report study, conducted using clinical and laboratory data.
Radiological, surgical, and anatomopathological findings of a patient treated at a tertiary hospital.
The information was obtained through review of medical records and supplementary examinations, respecting the...
Ethical principles and patient anonymity.

4. Results and Discussion

Female patient, 59 years old, hypertensive and diabetic, from Manaus, with no history of diabetes.
The patient, with a history of alcoholism, smoking, or familial neoplasms, presented with epigastric and right hypochondrium pain.

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For about a year, symptoms have been radiating to the back, accompanied by nausea and vomiting after eating. She denied fever, weight loss, or signs of cholestasis. The physical examination revealed no abnormalities. relevant.

Laboratory tests showed a slight elevation in bilirubin, with markers Tumors within normal limits. Computed tomography and magnetic resonance cholangiopancreatography. Magnetic resonance imaging revealed an infiltrative lesion in hepatic segment IV, with an intraductal component. involving the common hepatic duct and the left hepatic duct, causing marked dilation. of the left biliary tract, consistent with Bismuth-Corlette IIIB perihilar cholangiocarcinoma.

Liver biopsy revealed moderately differentiated adenocarcinoma, with a profile Immunohistochemical findings consistent with cholangiocarcinoma.

The patient underwent partial hepatectomy with lymphadenectomy of the hepatic pedicle and Resection of the lesion with a margin greater than 1 cm. The histopathological examination confirmed Papillary adenocarcinoma infiltrating the hepatic parenchyma, measuring 3.8 × 2.0 cm, with margins free from neural or lymphovascular invasion.

Perihilar cholangiocarcinoma presents a high level of therapeutic complexity, with resection being the most common option. Complete surgical reconstruction is the main favorable prognostic factor (CARINGI et al., 2025). Advances in Systemic therapies and molecular characterization have broadened therapeutic options, but surgery remains the only option. remains the only potentially curative modality (LIGUORI et al., 2025; COLANGELO et al., 2025).

Final Considerations

Cholangiocarcinoma is a rare, aggressive neoplasm that is difficult to diagnose early. The case The presentation highlights the importance of research using advanced imaging methods and... Histopathological confirmation for therapeutic definition. Surgical resection with clear margins. It remains the primary factor associated with survival, making a thorough assessment of it essential. Resectability and remaining liver volume. Multidisciplinary management is essential for Optimizing results.

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