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Secondary sclerosing cholangitis induced by systemic chemotherapy

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Dear Editor,

There are multiple causes of secondary sclerosing cholangitis (SSC), including mechanical obstruction, ischemia, congenital abnormalities, cholangiopathy of the critically ill patient and rarely, chemotherapy (1,2).

CASE REPORT

We present the case of a 52-year-old female with a history of left breast invasive ductal carcinoma treated with neoadjuvant chemotherapy (adriamycin, cyclophosphamide and paclitaxel), surgery and radiotherapy in March 2021.

She was admitted in July 2022 due to painless jaundice and pruritus with marked serum cholestasis. Magnetic resonance cholangiopancreatography showed multiple strictures and dilatations involving the intra and extrahepatic bile ducts (Fig. 1A),

without any extrinsic stenotic cause. Findings were confirmed by endoscopic retrograde cholangiopancreatography (ERCP) with cholangioscopy (Fig. 1B). Biopsies were negative for malignancy and IgG4 disease. In addition, autoantibodies were negative and serum IgG4 levels were normal. Due to these findings and the history of recent chemotherapy, the patient was diagnosed with paclitaxel-induced sclerosing cholangitis, initiating treatment with ursodeoxycholic acid.

Over the following two months, she suffered two episodes of *Klebsiella pneumoniae* bacteremia due to acute cholangitis. Dilatation and placement of plastic stents in both biliary trees were performed and prophylactic antibiotherapy was started. The patient had a poor evolution and was not a candidate for liver transplantation on account of a recent neoplasia. She died six months later due to sepsis secondary to multiple hepatic abscesses.

Discussion

Chemotherapy-induced SSC is a form of SSC occasionally described after hepatic transarterial chemotherapy (fluoropyridines). However, cases triggered by systemic chemotherapy are anecdotal, with five cases reported in the literature, some of them associated with taxanes (3,4), four of them in Japan.

The pathogenic mechanism is unknown, probably induced by direct toxicity with ischemic changes in the peribiliary vascular plexuses. Treatment includes ursodeoxycholic acid, biliary drainage and suspension of chemotherapy. It has a poor prognosis because of the rapid deterioration of liver function and the underlying neoplastic disease (3).

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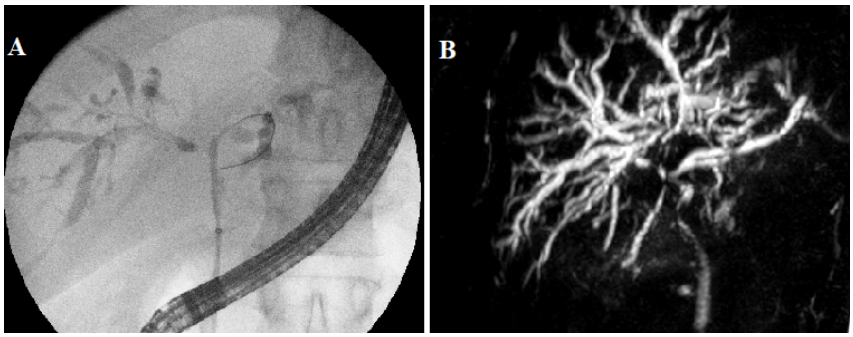

Fig. 1. A. Endoscopic retrograde cholangiopancreatography (ERCP) with cholangioscopy showing multiple strictures and dilatations. B. Magnetic resonance (MR) cholangiopancreatography with the same findings.