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CLINICAL CASE

Ampullary Metastasis From Breast Cancer: A Rare Cause of Obstructive Jaundice

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Abstract Breast cancer is the most common tumor in women and the first cause of death for malignancy in the female. Bile ducts are not among the common sites of metastasis from breast cancer. Few cases of obstructive jaundice due to metastatic breast cancer have been described in the literature and they mostly resulted from widespread liver metastases that eventually involved the bile ducts. We report an exceptional case of ampullary metastasis in the absence of liver metastases.

Sporadic reports have been published about the involvement of the ampulla by breast cancer metastasis. This case emphasizes the need to consider this diagnosis in women presenting with obstructive jaundice, especially when there is a clinical possibility of breast cancer.

PALAVRAS-CHAVE
Neoplasias da Mama;
Ampola Hepatopancreática;
Icterícia Obstrutiva/etiologia;
Metástase Neoplásica

Metástase Ampular de Neoplasia da Mama: Uma Causa Rara de Icterícia Obstrutiva

Resumen O cancro da mama é o tumor mais comum em mulheres e a principal causa de morte por neoplasia nesta população. A via biliar não é um local comum de metastização desta neoplasia. Poucos casos de icterícia obstrutiva devido a metástases mamárias têm sido descritos na literatura e ocorrem principalmente devido a metástases hepáticas que comprimem a via biliar. Relatamos um caso excepcional de metástase ampular na ausência de metástases hepáticas.

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Existem apenas relatos esporádicos do envolvimento da ampola por metástase mamárias. Este caso enfatiza a necessidade de considerar este diagnóstico perante um quadro de icterícia obstrutiva, especialmente em doentes com possível neoplasia mamária.

1. Introduction

Breast cancer is the most common malignancy in women, with over a million newly diagnosed cases each year and being one of the leading causes of cancer death among them.[1–3]

In 10% of the cases distant metastases are already present at the time of the diagnosis.[4–6] Breast cancer metastases occur through contiguous, lymphatic and hematogenous spread. Common sites of metastasis include bone, lung, lymph nodes, liver and brain. Virtually every site of the human body can be targeted by hematogenous spread of breast cancer. However, metastases to the digestive tract, the kidneys and retroperitoneal organs have only been occasionally reported.[4–6] Gastrointestinal tract involvement is detected in only 10% of all the cases.[4–6] Widespread liver metastases that compress or infiltrate the bile ducts can sometimes cause obstructive jaundice, whilst a direct metastatic involvement of the extrahepatic bile ducts in absence of hepatic lesions is exceptional.[4–6]

We report a singular case of obstructive jaundice due to a metastatic breast cancer to the ampulla of Vater. To the best of our knowledge and review of the literature there have been only few similar reports.[7–10]

This case emphasize that diagnosis can be difficult and controversial when metastasis from breast cancer occurs at uncommon sites, but quick and accurate diagnosis is needed for an adequate treatment choice.

2. Case presentation

A 59-year-old female was admitted to the emergency department with mucocutaneous jaundice associated with pruritus. No dark urine, acholic stools, abdominal pain, fever, anorexia or weight loss were present. Personal history included systemic lupus erythematosus (treated with hydroxychloroquine sulfate and mycophenolate mofetil), type 2 diabetes mellitus non-insulin treated and a breast lump (detected about a month ago in breast cancer screening mammography) under investigation (histology ongoing). The laboratory tests showed an obstructive pattern with total bilirubin 9 mg/dL, direct bilirubin 6.4 mg/dL, aspartate aminotransferase 126 IU/L, alanine aminotransferase 208 IU/L, gamma glutamyl transpeptidase 796 IU/L, alkaline phosphatase 726 IU/L and negative inflammatory parameters. Blood tumor markers (cancer antigen 19.9 and carcinoembryonic antigen) were within normal ranges. The abdominal ultrasound study was limited by bowel gas interposition but allowed view marked dilatation of intrahepatic bile ducts and common bile duct (14 mm) and could not define the cause of obstruction. Abdominal tomography confirmed dilatation of hepatic bile ducts (common bile duct with 15 mm without evidence of choledocholitiasis) and showed an ampullary mass with 13 mm of diameter suggestive of ampullary adenoma without suspicious abdominal lymph nodes (Fig. 1). Endoscopic retrograde cholangiopancreatography (ERCP) showed papilla of Vater with moderately increased volume and irregular mucosal suggestive of congestive ampullary adenoma. Biopsies were performed and two plastic biliary stents were placed. Histology showed infiltration by invasive ductal carcinoma of the breast (Fig. 2). During hospitalization the histology of the breast nodule revealed an invasive breast carcinoma and the patient initiated chemotherapy (including transtuzumab). Further evaluation with chest tomography and radionuclide bone scanning revealed the presence of bone metastases. For better palliation, three months after the plastic stent implantation, patient underwent repeat ERCP with the placement of a metal stent due to its better efficiency. At discharge and several weeks later the repeated laboratory tests revealed regression of cholestasis. The patient succumbed to metastatic disease 1 year later of the diagnostic without jaundice or abnormal liver function tests.

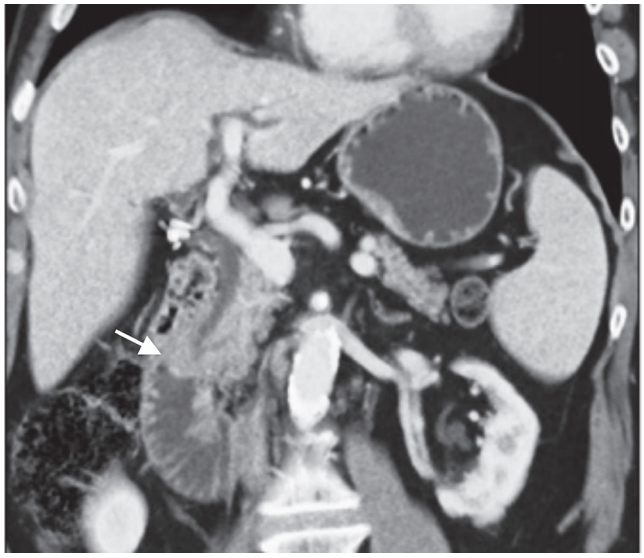

Figure 1 Computed tomography showed an ampullary mass with 13 mm suggestive of ampullary adenoma.

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