Scholars Journal of Medical Case Reports
Abbreviated Key Title: Sch J Med Case Rep
ISSN 2347-9507 (Print) | ISSN 2347-6559 (Online)
Journal homepage: https://saspublishers.com

OPEN ACCESS

Gastroenterology

Unusual Case of Colon Cancer Metastatic to Biliary Duct Mimicking Cholangiocarcinoma

Jarti Mariama[1*], Aharbil Fatima Ezahra[1], Hadadia Oualid[1], Nacir Oussama[1], Lairani Fatima Ezzahra[1], Ait Errami Adil[1], Oubaha Sofia[2], Samlani Zouhour[1], Krati Khadija[1]

[1]Gastroenterology Department at Mohamed VI Universal Hospital of Marrakesh, Morocco
[2]Laboratory of Physiology, University Cadi Ayyad, Marrakesh, Morocco

DOI: 10.36347/sjmcr.2023.v11i12.022 | **Received:** 15.11.2023 | **Accepted:** 26.12.2023 | **Published:** 27.12.2023

***Corresponding author:** Jarti Mariama
Gastroenterology Department at Mohamed VI Universal Hospital of Marrakesh, Morocco

Abstract **Case Report**

Metastasis of adenocarcinoma of the colon is commonly found in the lung, liver, or peritoneum. There are reports of tumors of the common bile duct (CBD) related to adenomas from Familial Adenomatous Polyposis and various organs metastasizing from outside of the gastrointestinal tract. Biliary metastasis is a rare entity for metastatic colon malignancy. A few cases of CBD metastasis from colorectal cancer have been reported. Here, we report a case of. Biliary colic due to metastatic adenocarcinoma of the colon to the CBD mimicking cholangiocarcinoma.

Keywords: Metastasis of adenocarcinoma, common bile duct (CBD), radiochemotherapy.

INTRODUCTION

Metastasis to the extrahepatic bile duct is an extremely rare manifestation of colon cancer. Patients were identified using an existing colorectal cancer database. It often leads to a diagnostic dilemma, since primary cholangiocarcinoma has a similar presentation [1]. Despite the high resolution of current CT and MRI, the differential diagnosis between biliary metastases and cholangiocarcinoma is not possible. They were confirmed by histopathological methods; immunohistochemistry confirmed the colon primary.

CASE

We report the clinical case of a 54-year-old man with a history of infiltrating sigmoid adenocarcinoma, who was operated on in October 2018 with adjuvant radiochemotherapy. The patient was monitored regularly by liver ultrasound, thoraco-abdominal CT scans and carcinoembryonic antigen (CEA) assay. 13 months later, he presented with persistent cholestatic jaundice (mucocutaneous jaundice, discoloured stools, dark urine and pruritus) associated with diffuse abdominal pain. Biologically, he developed cholestasis, with gamma-glutamyl transpeptidase and alkaline phosphatase activities at 4 N, very high total and conjugated bilirubin, and normal tumour markers ACE and CA 19-9 at 1.9 ng/mL and 28 IU/L, respectively. Abdominal CT scan showed dilatation of the Intra-hepatic biliary duct and the common bilary duct l to a tissue lesion measuring approximately 8 mm. with stable thickening at the rectocolic anastomosis.

Endoscopic retrograde cholangio-pancreatography (ERCP) showed dilatation of the common bilary duct to a tissue lesion measuring approximately 10 mm. A diagnosis of biliary metastasis was made. A biliodigestive bypass with cholecystectomy was proposed, and biopsy of a mass in the common bile duct. Histological findings including the immune-histochemical examinations (CK7−, CK20+, CDX2+ and SATB2+) uncovered the metastatic tumor into extrahepatic bile duct originated from the primary colon cancer. Chemotherapy was then decided in a multidisciplinary consultation based on a local expert consensus. But unfortunately died after complications caused by cholangitis and septic shock.

DISCUSSION

Bile duct obstruction due to metastasis of extrahepatic bile duct in gastric cancer and metastasis to lymphnodes around the bile duct in lung cancer has been reported but biliary metastasis from colorectal cancer has remained an extremely rare presentation of colorectal cancer since it was first reported by Herbut and Watson3 in 1946 [2]. Two different morphologies of biliary metastasis have been described: one as a malignant biliary stricture and the second as an endoluminal lesion.

Some suggest that isolated extrahepatic biliary metastasis can be described as a variant of cholongiocarcinoma, which is aggressive and has a bad prognosis [3]. Therefore, it is essential that clinicians bear in mind that a presentation of obstructive jaundice in patients with a prior history of colon malignancy has the possibility of developing biliary metastasis.

Biliary metastases commonly show intraductal papillary growth. However, especially in metastases of colorectal origin, an intraepithelial growth similar to cholangiocarcinoma may be seen, mimicking its appearance on CT and MRI.2 4 Lee *et al.*, [4], identified some imaging features on CT and MRI that favour the diagnosis of biliary metastases rather than cholangiocarcinoma: the presence of a parenchymal mass adjacent to the biliary lesion, an expansile growth of the intraductal lesion, and a history of colorectal cancer. The presence of intralesional calcifications also favours the diagnosis of biliary metastases, typical of colorectal mucinous metastases and very rare in cholangiocarcinoma. On the contrary, the following characteristics suggest cholangiocarcinoma: purely intraductal lesion, intraductal papillary growth and a history of extracolic neoplasia [5].

The utility of immunostaining with CK7, CK20 and CDX20 for diagnostic confirmation has been reported recently. Rullier *et al.*, showed that the ratio of CK7(-)/CK20(+) was 4% in bile duct cancer but 81% in colorectal cancer, and that a combination of CK7 and CK20 was valuable in determining that the ductal tumour was a metastatic lesion from colorectal cancer. In particular, CDX2 and SATB2 are highly sensitive and specific for the detection of metastatic lesions of gastrointestinal adenocarcinoma, especially colorectal cancer [6].

Surgical resection is the only curative treatment and may be indicated in oligometastatic patients. In these patients, the risk of positive margins is high due to intrabiliary growth.It is essential to communicate this finding to the surgical team [7].

CONCLUSIONS

This is a rare case of colon cancer with an unusual metastatic pattern mimicking a cholangiocarcinoma. these metastases have distinct histopathologic morphology and immunohistochemically detectable antigen expression. The presence of an intraductal lesion with expansive growth associated with adjacent solid lesion and a history of colorectal adenocarcinoma may favour intraductal metastasis rather than primary intraductal cholangiocarcinoma.

Conflicts of Interest: The authors declare that there is no conflict of interest regarding the publication of this paper.

Acknowledgements: None

REFERENCES

1. Wenzel, D. J., Gaede, J. T., & Wenzel, L. R. (2003). Intrabiliary colonic metastasis mimicking primary biliary neoplasia. *American Journal of Roentgenology*, *180*(4), 1029-1032.
2. Herbut, P. A., & Watson, J. S. (1946). Metastatic cancer of the extrahepatic bile ducts producing jaundice. *American Journal of Clinical Pathology*, *16*(6), 365-372.
3. Koh, F. H. X., Shi, W., & Tan, K. K. (2017). Biliary metastasis in colorectal cancer confers a poor prognosis: case study of 5 consecutive patients. *Annals of Hepato-biliary-pancreatic Surgery*, *21*(1), 57-60.
4. Lee, Y. J., Kim, S. H., Lee, J. Y., Kim, M. A., Lee, J. M., Han, J. K., & Choi, B. I. (2009). Differential CT features of intraductal biliary metastasis and double primary intraductal polypoid cholangiocarcinoma in patients with a history of extrabiliary malignancy. *American Journal of Roentgenology*, *193*(4), 1061-1069.
5. da Silva, N. P., Abreu, I., Curvo-Semedo, L., & Donato, P. (2021). Biliary metastasis of rectal carcinoma mimicking cholangiocarcinoma. *BMJ Case Reports*, *14*(7).
6. Ofuchi, T., Hayashi, H., Yamao, T., Higashi, T., Takematsu, T., Nakao, Y., ... & Baba, H. (2020). Colon cancer metastasis mimicking a hilar cholangiocarcinoma: a case report and literature review. *Surgical Case Reports*, *6*(1), 1-5.
7. Jhaveri, K. S., Halankar, J., Aguirre, D., Haider, M., Lockwood, G., Guindi, M., & Fischer, S. (2009). Intrahepatic bile duct dilatation due to liver metastases from colorectal carcinoma. *American Journal of Roentgenology*, *193*(3), 752-756.