CASE REPORT

Colon Cancer Recurrence Mimicking Renal Cell Carcinoma

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INTRODUCTION

Colorectal cancer (CRC) is one of the most common gastrointestinal cancers in the world. In Malaysia, it is the third most common cancer for both men and women. Curative surgical resection with en bloc removal of the regional lymph nodes remains the mainstay of treatment with 5-year survival rate of 70%-90% for local disease.[1] Nonetheless, about 1 in 3 curatively treated CRC patient will suffer from local recurrence or metastasis.[2] Among the usual sites of recurrence are liver, lungs, local and/or regional intraabdominal and retroperitoneal lymph nodes.[3] We report a rare case of colon cancer recurrence to the left kidney after curative surgery and adjuvant therapy, which mimicked left renal cell carcinoma.

CASE PRESENTATION

A 21-year-old male had presented with lower abdominal pain, distension and vomiting for two days in January 2007. Abdominal examination was unremarkable and therefore was treated conservatively. His symptoms had worsened when finally an exploratory laparotomy was performed. A splenic flexure tumour that adhered to pancreas was found with lymph nodes alongside middle colic vessel. Left hemicolectomy was performed and he recovered well. Post-operative CT staging had detected mediastinal and aortocaval lymphadenopathy without distant metastasis. Histological examination meanwhile revealed a poorly differentiated colon adenocarcinoma, (Astler-Coller C2) with clear surgical margin. He received adjuvant intravenous 5-fluouracil and folinic acid for 6 months. No local or distant metastasis was found on surveillance colonoscopy and CT a year later (Fig 1).

He presented again in August 2010 with left-sided abdominal pain, weight loss and palpable and ballotable left lumbar mass. Serum carcinoembryogenic antigen (CEA) was 9.6 mmol/l. Colonoscopy did not reveal any anastomotic or colonic recurrence, however CT showed large heterogeneously enhancing left renal mass with multiple lymph nodes and lung nodules. It caused gross left hydronephrosis and infiltration into the body and tail of pancreas. Extensive venous thrombosis of the portal system and left renal vein was also noted. A diagnosis of locally advanced left renal cell carcinoma was then inferred (Fig 2).

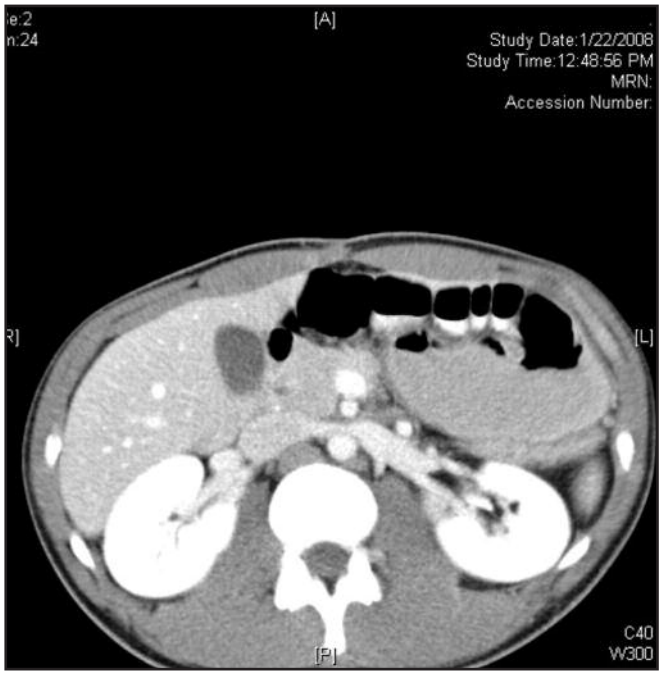

Fig. 1: Axial CT abdomen in 2008 during follow up a year after the surgery showing no local recurrence.

Fig. 2: Axial CT abdomen in 2010, three years after the surgery showing large left renal mass.

This article was accepted: 9 November 2014
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Percutaneous CT-guided biopsy was performed following a referral to urology. The histology and immunohistochemical (IHC) staining profile of the mass favoured metastatic carcinoma from gastrointestinal tract (CEA positive, CK 7 negative) over a primary renal tumour (CD10 negative). He was planned for chemotherapy and palliative left nephrectomy but unfortunately succumbed to this extensive disease a week before the planned treatment.

DISCUSSION

Although curative surgical resection affords the best chance of cure, about 10%-25% CRC patients are still at risk of developing local recurrences and metastasis after surgery. [2] The median time to recurrence was reported to be at about 16 months.[4] In the present case, the recurrence was noted 36 months after curative resection and adjuvant treatment. While the rate and time to recurrence depend on TNM stage, it is seen much earlier for stage III disease, presence of tumour adhesion and/or invasion, or tumour perforation.[4] Metastasis to liver and lung are frequently reported whereas distant colonic metastasis to organs such as kidney is rare. Such rare site with a distinct interval period of metastasis may suggest haematogenous route of spread.[5] Shiraishi *et. al,* in 1989 meanwhile had described a colon cancer recurrence to renal pelvic mucosa via intraluminal implantation of cancer cells. The present case also highlights the importance of immunohistochemistry in histology to reliably guide the final diagnosis of tumour of rare presentation.

Treatment of locoregional recurrence is challenging, as only 7%-20% of these patients will benefit from aggressive curative reoperation. Although an unresectable metastatic CRC can be suitably resectable after a major response towards combination chemotherapy, this treatment strategy needs a multidisciplinary team approach and careful selection of patient.

ACKNOWLEDGEMENT

This work has been presented as poster during Coloproctology, 3-5th March 2011, Kuala Lumpur.

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