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Case report

DUODENAL METASTASIS OF CLEAR CELL RENAL CARCINOMA PRESENTING WITH GASTROINTESTINAL BLEEDING

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INTRODUCTION

Clear cell renal carcinoma accounts for approximately 75% of all renal cancer diagnosis. It commonly metastasizes haematogenously to the lungs, liver and bones (Chevrier et al 2017). Gastrointestinal metastases of clear cell renal carcinoma are a rare presentation of the disease. Here we present an unusual case of duodenal metastasis of clear cell renal carcinoma.

CASE REPORT

A 60 year old male patient was admitted with anemia and gastrointestinal bleeding presenting with melena and vomiting. His medical history included radical nephrectomy of the right kidney 10 years prior due to renal carcinoma with postoperative chemotherapy. Abdominal and pelvic CT scan done 6 years after the operation showed no recurrence of the disease and no abdominal or pelvic metastasis.

Endoscopy showed a large submucose mass of the duodenal bulb, almost entirely obliterating the duodenal lumen, with a bleeding ulcer of the mucosa. MSCT scan of the abdomen revealed a partially necrotic tumor, situated in the submucosa of the duodenal bulb and the descending part of the duodenum. The tumor measured 5x4 cm in the transversal plane and expanded into the retroperitoneal space where it compressed the inferior vena cava. The MSCT scan also showed a distended stomach and no evident liver metastasis.

During surgery a tumor of the duodenal submucasa with infiltration of the retroperitoneal space and inferior vena cava was confirmed. The tumor was deemed inoperable but maximal reduction of the tumor was carried out. A duodenotomy and tumor reduction was preformed after which a gastro-jejunal and jeujuno-jejunal anastmosis was created. The immediate postoperative recovery was uneventful. After recovery the patient was referred to an oncologist.

The patient died 6 months after the surgery due to a pulmonary embolism.

DISCUSSION

Gastrointestinal metastases of clear cell renal carcinoma are exceedingly rare. A handful of cases have been published. A single centre review published in 2021 showed that 1.6% of patients with metastatic clear cell carcinoma had gastrointestinal metastases (Maelle et al. 2021).

Of all the metastases of clear cell renal carcinoma to the gastrointestinal tract duodenal metastasis are the rarest and rearly reported in literature (Short et al 1993).

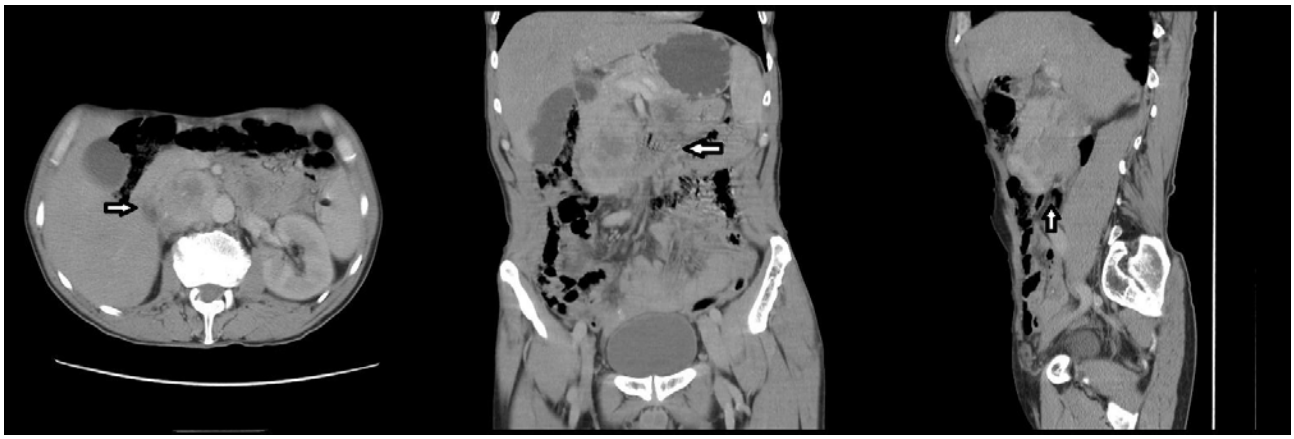

Figure 1. Sample slices of a CT image with arrows indicating tumor mass

In the cases reported in literature one of the common presenting symptoms is jaundice due to the obstruction of the major duodenal papilla. The patient presented in this case report did not have papillary involvement, but due to the size of the tumor symptoms manifested with a bleeding ulceration of the duodenal mucosa, melena and vomiting. It is worth noting that renal cell carcinoma is characterized by late recurrence and late gastrointestinal metastases have been described (Saito et al. 2018). Literature findings suggest an individual approach to solitary gastrointestinal metastasis management. Endoscopic haemostasis is usually difficult to perform and endovascular embolization of tumor supplying artery should be considered in patient with poor general condition (Farrokh et al. 2019.). Surgical management depends on the general condition of the patient. As shown in the case reported here radical excision of metastasis is often impossible but findings suggest any type of metastasectomy increases the survival of the patient (Omranipour et al. 2017). The cause of death of the patient presented in this paper is pulmonary embolism due to tumor infiltration of inferior vena cava.

CONCLUSION

The case presented here and earlier cases publish suggest that there is no upper time limit for occurrence of distant metastasis of clear cell renal carcinoma after surgery

Gastrointestinal metastases after surgery for clear cell renal carcinoma should be considered as the possible cause of gastrointestinal bleeding in all patients with history of renal cell carcinoma.

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