

# Renal cell cancer with solitary gastric metastasis: a rare presentation

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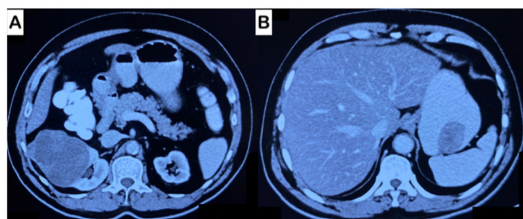
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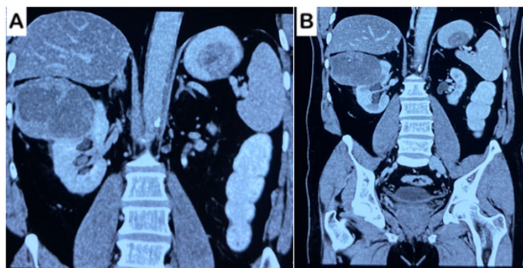
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## DESCRIPTION

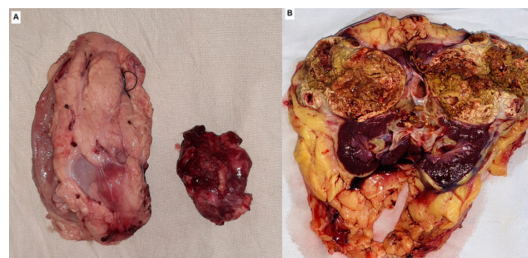
A 65-year-old man, known case of coronary artery disease on dual antiplatelet therapy, presented in emergency with two episodes of sudden onset haematemesis. There was no history of melena, altered bowel habits, flank pain, jaundice, generalised lymphadenopathy or bleeding tendencies in the past. On further evaluation, the patient reported undocumented weight loss in the past 3 months. His medical and family history was insignificant. On examination, the patient was unconscious, oriented and his vitals were stable. Systemic examination was grossly normal. Routine blood investigations showed haemoglobin 84 g/L, serum creatinine 0.7 mg/dL, and liver functions and urine analysis were within normal limits. The patient was transfused two units of packed red blood cells and started on injectable antacids. Contrast-enhanced CT showed a solitary 8×10 cm exophytic enhancing heterogeneous mass in the upper and mid pole of the right kidney with a solitary space occupying lesion (SOL) in the fundus of the stomach (figures 1 and 2). There was no evidence of regional lymphadenopathy or distant metastasis. Chest X-ray was grossly



**Figure 1** (A) Contrast-enhanced CT axial image showing exophytic heterogeneous enhancing mass in the upper and mid pole of the right kidney. (B) Image showing a well-defined enhancing mass with smooth outline in the gastric fundus.

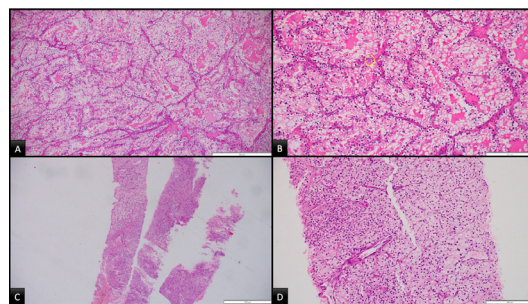


**Figure 2** (A, B) Contrast-enhanced CT coronal image showing heterogeneous 8×10 cm enhancing mass in the right kidney with areas of internal necrosis and a well-defined enhancing mass in the gastric fundus.



**Figure 3** (A) Gross specimen of right cytoreductive nephrectomy and gastric metastectomy. (B) Cut specimen of right cytoreductive nephrectomy showing variegated yellowish mass in the upper and mid pole of the kidney with areas of necrosis.

normal. Gastroenterology opinion was taken. Upper gastrointestinal endoscopy showed a well-defined submucosal lesion in the gastric fundus. The biopsy of the gastric lesion showed metastatic clear cell cancer. In view of solitary gastric metastasis with right renal cell cancer (RCC), the patient underwent right radical nephrectomy with gastric SOL excision. Cut specimen showed variegated solitary growth in the upper and mid pole of right kidney (figure 3). Postoperative hospital stay was uneventful. Histopathology confirmed International Society of Urological Pathology grade 2 clear cell renal cancer with similar histology in the gastric lesion (figure 4). The patient was started on tablet pazopanib 400 mg two times per day on follow-up. At 1 year, the patient is doing well.



**Figure 4** Panel of microphotographs showing (A) renal tumour with cells arranged in nests and alveoli separated by fine capillary network. Areas of cystic change is also seen (H&E, 100× magnification). (B) The tumour cells have abundant clear cytoplasm and mildly pleomorphic nuclei with conspicuous nucleoli at 200× magnification (International Society of Urological Pathology grade 2). (C) Histology from the stomach lesion showing metastatic deposits. (D) The tumour cells also show clear cell morphology.

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## Images in...

There is no evidence of recurrence on fluorodeoxyglucose positron emission tomography scan, and liver and renal functions are within normal limits. Haematemesis is the rarest presentation of RCC.<sup>1</sup> RCC with synchronous solitary metastasis to the stomach is extremely rare.<sup>2</sup> Little is known regarding the biological mechanism that drives RCC metastasis.<sup>3</sup> The proposed hypotheses are tumor-derived microvesicles (which essentially break off from the primary site) which may disperse tumours through haematogenous routes.<sup>4</sup> In good-risk patients of RCC with oligometastatic disease, excision of the lesion with cytoreductive nephrectomy has shown favourable response. In

the index case, the patient underwent radical nephrectomy with gastric SOL excision and is doing well on follow-up.

However, long-term follow-up is required to know any conclusive evidence on survival.<sup>5</sup>

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## Patient's perspective

I am extremely thankful to the whole team of doctors for taking care of me during my treatment and hospital stay.

## Learning points

- ▶ Renal cell cancer (RCC) with solitary gastric metastasis is rare.
- ▶ Haematemesis is a unique presenting feature of metastatic RCC.
- ▶ Cytoreductive nephrectomy with solitary gastric space occupying lesion excision, if feasible, should be performed.

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