

Atypical Presentation of Renal Cell Carcinoma: A Case Report

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ABSTRACT

The most common form of malignant renal tumours is Renal cell carcinoma (RCC) which is considered for nearly 80-85% of primary renal tumors. Now a day renal tumours can usually be detected at primary stage due to the popularity of sonography. Clinical manifestations of RCC have a diverse range. Loin pain, hematuria and abdominal mass contemplate as a classical triad but only present in 4–17% of cases. Here, we present a unique case of RCC in a 65 years old elderly gentleman admitted to our hospital with upper gastrointestinal (GI) symptoms without any significant GI involvement.

Keywords: Renal cell carcinoma, Gastrointestinal.

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I. INTRODUCTION

Currently, Renal cell carcinoma has regarded as the 13th most common cancer worldwide although the incidence of renal tumours differs across the nations. Renal cell carcinoma is generally diagnosed among the elderly population. Both males and females with the age group of 85-89 years belong to the highest risk zone [1]. The usual presentation of the condition is nonspecific. The classical triad of loin pain, hematuria and abdominal mass has established only in 4–17% of patients [2], [3]. With the increased use of modern imaging techniques RCC is often diagnosed at an early stage; therefore, patients with a huge renal mass is infrequently came across [4]. However, if the

treatment of renal tumors is not contemplated in time then they can emerge into enormous sizes [5], [6]. The origin of Renal cell carcinoma is from renal epithelium and consider for more than 90% of kidney cancers. Lungs, liver, bone, adrenals, and brain are the most frequent sites for metastasis [7]. RCC can be manifested as a case of upper GI bleeding due to the invasion of the tumours into the duodenum. Here, we present a rare case of a 65 years old elderly gentleman with RCC, presenting with marked GI symptoms without any significant GI involvement.

II. CASE PRESENTATION

A 65-years-old retired gentleman with a history of heartburn presented to his general practitioner in August 2018. The heartburn had been getting worse since December 2017 but had now become more prominent and associated with persistent nausea and infrequent vomiting. He has lost his appetite and had 4.5 kg reduction in his weight without having any efforts. He had no history of hematuria or loin pain to suspect a renal etiology.

His history revealed generalized anxiety disorder and depression for which he had been previously prescribed with Citalopram and Mirtazapine. He had no previous history of hospitalization. He underwent an upper GI endoscopy, which showed mild gastritis. He was therefore prescribed with omeprazole and domperidone for a few months with a little improvement. He did not have any significant family history of cancer, though his paternal uncle had colonic polyps. The patient was an ex-smoker with a 10 pack-year history for 15 years.

On examination he was malnourished with no evidence of anemia, clubbing or lymphadenopathy. All other systemic evaluation including abdominal examination was unremarkable. Routine blood investigations revealed no abnormalities except C-reactive protein which was 72.5 mg/L (0–3 mg/L), erythrocyte sedimentation rate was 66 mm in 1st hour (1–20 mm in 1st hour) and hemoglobin was at the lower end with a value of 11.5 g/dL (13–18 g/dL). His urine analysis, liver and renal functions were normal and sonography did not detect any visible abnormality. He was (campylobacter-like organism) negative.

According to clinical and laboratory evaluation the patient was advised to take omeprazole 20 mg twice daily, domperidone 10mg 3times a day for 15 days and multivitamins. He was scheduled for a routine follow up after 6 weeks.

After 12 weeks the patient presented for a review with no improvements in his symptoms moreover his overall condition had deteriorated. This time on abdominal examination his left kidney was found to be enlarged and ballot able. His C-reactive protein had risen to 105.4 mg/L (0–3 mg/L); and erythrocyte sedimentation rate had rose to 96 mm/h (1–20 mm/h). Following these results, we arranged for an urgent CT scan of abdomen with angiography which suggested 10×6 cm² mass arising from the upper pole of the left kidney (Fig. 1 & 2).



Fig. 1. Abdomen – pelvis CT scan showing left renal mass.



Fig. 2. CT angiography of left renal mass.

The patient was subsequently referred under the care of the multidisciplinary team including oncologist, urologist nephrologist and nutritionist and was treated with Pazopanib, a receptor tyrosine kinase inhibitor. Initially, repeat CT scan showed mild shrinkage of the renal mass with some improvements in wellbeing but later on he developed secondary metastasis in the lungs and liver, and died in the following months.

III. DISCUSSION

Renal tumours can be manifested either primary or secondary malignancies. Secondary renal metastasis is usually discovered at postmortem examination as they remain clinically silent for a while. A range of symptoms have been observed in patients with RCC though it may remain asymptomatic until the disease is advanced. 25% of either distant metastases or significant local-regional disease has been unveiled at the initial manifestations. RCC has been designated as the "internist's tumor" due to its extraordinary characteristics because some cases with only localized disease may present with a wide variety of symptoms and/or laboratory abnormalities [8]. In the modern time incidental diagnosis are more prevalent due to sophisticated imaging modalities [9], [10].

The classic triad of flank pain, hematuria and abdominal mass is infrequent (4-17% cases) and represent disease progression. The frequency of clinical presentation of Renal Cell Carcinoma is shown in (Table 1) [11].

TABLE 1: CLINICAL PRESENTATION OF RENAL CELL CARCINOMA

Hematuria	40%
Flank pain	40%
Weight loss	33%
Metastasis	30%
Palpable mass	25%
Fever	20%
Hypertension	20%
Classic triad	10%
Hypercalcaemia	5%

Several unique clinical presentations like hoarseness or calverial metastasis of Renal Cell Carcinoma have been described in one study of which only five studies have been reported so far [12]. Malaena and abdominal pain were the initial presentation in an 80 years old RCC patient whom

upper GI endoscopy revealed bleeding polypoidal mass invading the second part of the duodenum. A further abdomen/pelvis CT scan revealed an 8 cm mass in the lower pole of the right kidney. It was described by Mohamed et al in their study [13]. RCC can spread to the small intestine; this has been highlighted in one study of Gorski et al where an 80-years-old male with history of RCC presented with syncope and black stools in the emergency department. On examination patient was severely anemic. An urgent video capsule endoscopy arranged which revealed the source of the GI bleeding in the jejunum and ileum. Poorly differentiated malignant neoplasm was found in the histopathology, which was the manifestation of secondary metastatic deposits of RCC [14]. Tiwari et al described a case of secondary RCC metastasis the lungs where a 58-year-old female presented to the emergency department with melena and hematemesis. No abnormalities were detected in the upper GI endoscopy but the abdominal CT revealed a mass in the superior pole of the left kidney [15]. Sakurai et al has carried out an English literature review in the PubMed database using the key words “renal cell carcinoma” and “gastric metastasis”. 22 patients were identified in this group, of which 17 were males and 6 were females, 68.7 years was the mean age (age range 53–83 years). GI signs and symptoms such as GI bleeding, melena, anemia, and hematemesis were seen in 19 cases [16].

The initial presenting complaint from our patient was “Heartburn”. Peptic ulcer was the pivotal differential diagnosis. However, upper GI endoscopy did not comply with our clinical judgment and moreover patient also showed no improvements with the proton pump inhibitors. Furthermore, imaging modalities did not show any involvement of the GI tract. Our patient was in the same age group along with those mentioned by Sakurai et al. [16] Given his past medical history of anxiety and depression, the nonspecific features of his symptoms and lack of signs of upper GI bleeding such as melena and hematemesis, there were no reasons to suggest a renal pathology in this case.

Physicians in primary care settings should give additional attentiveness and contemplate all possible organic causes for patients with mental health disorders with nonspecific symptoms, as these patients might be at increased probability of having a sinister diagnosis missed. Moreover, further research must be conducted to evaluate the rate of misdiagnosis in patients with mental health disorders.

IV. CONCLUSION

Several fundamental issues were highlighted in our case of RCC. We should bear in mind that the classical triad of loin pain, hematuria and a palpable abdominal mass may not present all the time during diagnosis among elderly patients as it is prevalent only (4-17%) cases. RCC should be considered as an important differential for geriatric population presenting with non-specific upper GI symptoms along with red flag features such as weight loss, anorexia, and lethargy where no identifiable cause can be revealed.

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