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Case report

Unusual presentation of late recurrence renal malignancy

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KEYWORDS
Renal cancer;
Papillary;
Late recurrence

Abstract
Introduction: Late recurrence of renal cell carcinoma is rare and mostly of clear cell histology. The objective of our study was to report our case of late recurrence of papillary RCC.
Observation: Seventy year old female patient was presented to our department, more than 7 years post radical nephrectomy for moderate risk RCC. The presentation was persistent localized abdominal pain and proved by immunohistochemistry to be a metastatic papillary RCC.
Conclusion: Any symptomatic patient, with history of previous radical nephrectomy, should have recurrent cancer considered in his differential diagnosis.

Introduction

Renal cell carcinoma (RCC) is an aggressive but curable disease. Moderate risk cancer (T2-4 N0) is characterized by up to 70% risk of early local and metastatic recurrence [1]. Both American urology association (AUA) and national comprehensive cancer network (NCCN) recommend radiological follow up till 5 years post-surgery, with no specific recommendations for surveillance after that [1,2]. Canadian urology association (CUA) extends radiological follow up to 6 years [3] while European association of urology (EAU) recommended surveillance for 3–5 years and left more prolonged surveillance option for clinician's judgement [4]. Median time to relapse has been reported to be within less than 3 years and lungs have been reported to be the most common site of recurrence [5–7].

The aim of our study was to report a rare case of late retroperitoneal metastasis of a moderate risk papillary RCC.

Case report

Seventy year old female patient presented with left iliac dull aching pain, not responding to non-steroidal anti-inflammatory drugs. The patient had left radical nephrectomy in 2010 for large complicated cyst in the left kidney and pathology came back as papillary RCC stage 1. The patient was followed by annual C.T. for 5 years, and then

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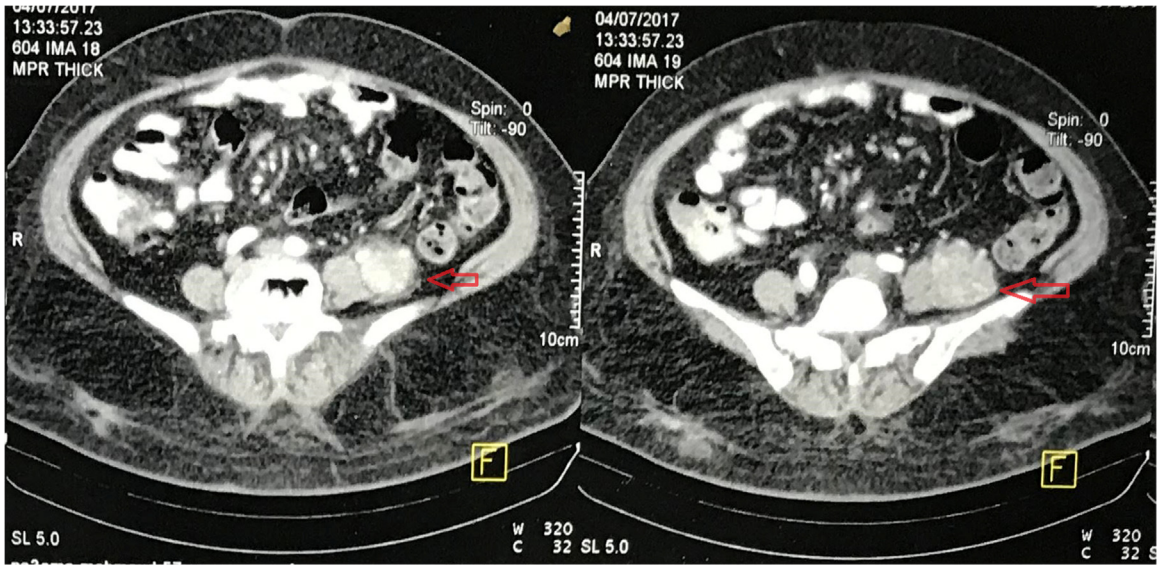

Figure 1 Axial C.T. images, showing an enhanced left iliac mass.

discharged from urology care with no evidence of local or systemic spread.

Because of the persistent pain, C.T. scan was requested that showed no tumour recurrence in renal bed and an enhancing mass in the left iliac region (Figs. 1 and 2). C.T. guided biopsy was done and pathology came back as an anaplastic carcinoma.

After discussion in tumour board, decision was made to proceed with surgical open exploration and mass excision. The mass was well circumscribed measuring $8.5 \times 6.5 \times 3\,cm^3$. Cytokeratin 7 (CK7), cluster of differentiation 10 (CD10) and Wilms' tumour 1 (WT1) were studied and came back negative, initially excluding renal cell carcinoma. Alpha methylacyl Co A racemase (AMACR) immunostaining was then done and came back positive, suggesting the possibility of a metastatic papillary renal cell carcinoma.

Discussion

Park et al. studied 747 patients that had radical nephrectomy and obtained follow up studies for more than 5 years. He found that late recurrence (>5 years) happened in 5% of the patients. Interestingly; no single patient with late recurrence had papillary histology and 97% of the patients had clear cell histology [8]. Miyao et al. studied late recurrence on 470 patients and confirmed that it happened in 6% of patients, but the study did not refer to the histological subtype of the recurrence [9]. Interestingly; both studies [8,9] found that the majority of late recurrence, in agreement with our case, happened in cases that had stage 1 renal tumour on first surgery. Kucharczyk and Matrana studied 720 patients that had radical nephrectomy and found that 100% of late recurrence was clear cell histology [10].

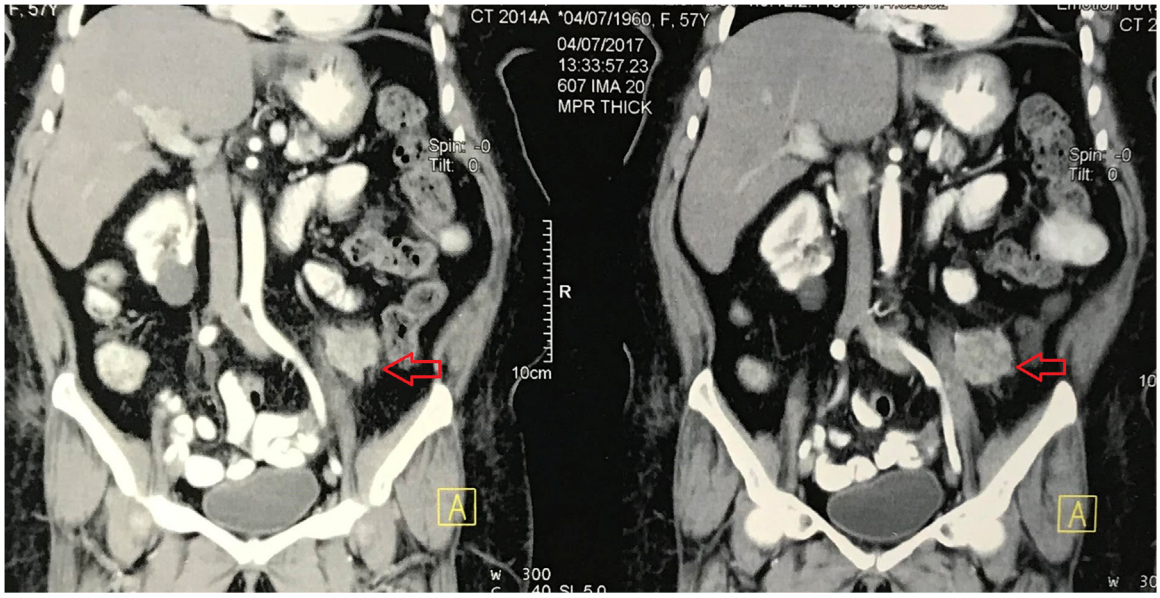

Figure 2 Coronal C.T. images, showing an enhanced left iliac mass.

Our patient had a smooth recovery from surgery and was enrolled back into surveillance C.T. scan. She was assured that she is likely to have good survival based on having a solitary abdominal recurrence that was completely removed more than 5 years after surgery. Kavolius et al. [11] conducted a retrospective study on 278 patients that developed recurrence post radical nephrectomy and found that favorable survival outcomes were obtained for patients with long disease free survival before recurrence and patients with solitary recurrence that was completely resected. Another study conducted on 256 patients with recurrence concluded that late recurrence and favorable Memorial Sloan-Kettering Cancer Center risk score can predict good survival following metastatectomy [12]. Margulis et al. [13] studied 54 patients with recurrence and found that some biochemical and pathological factors may play roles as prognostic markers for survival, but the mainstay for favorable cancer specific survival is the aggressive resection of the metastasis.

Conclusion

Any symptomatic patient, with history of previous radical nephrectomy, should have recurrent cancer considered in his differential diagnosis.

Conflict of interests

No conflict of interest to declare.

Consent from the Patient

A written informed consent has been obtained.

Source of funding

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Authors' contributions

Mohamed Sharafeldeen: data collection, surgical procedure.

Ahmed Kotb: data analysis, literature review.

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