

Case Report

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Late isolated renal fossa recurrence of clear cell renal cell carcinoma 15 Years post-nephrectomy: A case report and literature review

Abstract

Background: Clear cell renal cell carcinoma is the most common type of renal carcinoma and among them ccRCC is most common. We report a case of a patient diagnosed with renal cell carcinoma (RCC), who exhibited no metastases at the time of nephrectomy but experienced recurrence in the renal fossa after 15 years

Case Presentation: We report a late local recurrence of clear cell renal cell carcinoma after 15 year post radical nephrectomy. Lesion find in annual follow-up and initial biopsy show normal hepatic parenchyma we repeat biopsy and confirm local recurrence.

Conclusion: The pathology after surgery confirm ccRCC and refer to oncologist for immunotherapy. In this case we emphasize for long term follow-up of RCC

Keywords: RCC, Recurrence, Post-nephrectomy.

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Renal cell carcinoma (RCC) constitutes 5% of malignant tumors in males and 3% in females (1). The primary histological variants of renal carcinoma comprise clear cell, papillary, chromophobe renal cell, and collecting duct carcinoma. In other uncommon forms of RCC, the term 'late recurrence' denotes a timeframe surpassing 10 years post-curative nephrectomy, occurring in approximately 4.3% to 11% of RCC cases (2-4). We report a case of a patient diagnosed with renal cell carcinoma (RCC), who exhibited no metastases at the time of nephrectomy but experienced recurrence in the renal fossa after 15 years.

Case Presentation

A 58 y/o Iranian man with a history of renal cell adenocarcinoma treated with right radical nephrectomy (t2 n0 m0) 15 years ago in annual f/u found a mass in the right renal fossa. He had not a positive family history and in general, his appearance was unremarkable. The physical examination showed severe obesity. The lab test was normal. Ultrasonography showed a hypoechoic lesion in the posterior aspect of the right liver lobe (53 × 29 mm). The CT scan revealed an enhancing mass of about 2.5 cm in the posterior aspect of the right liver lobe at the lower postero-inferior segment (figures 1 and 2). Sonoguided biopsy from mass decided and histopathological examination revealed normal hepatic parenchyma and we repeated biopsy with IHC study showing metastatic renal cell carcinoma clear cell type (positive for CD10 and vimentin). The patient underwent surgical excision with thoracoabdominal incision histopathological examination shows renal cell carcinoma clear cell type (tumor recurrence) and surgical margin free of tumor. We consulted with the oncologist and started immunotherapy with pembrolizumab.





Figure 1. Abdominopelvic CT scan of patient show the mass in right renal fossa

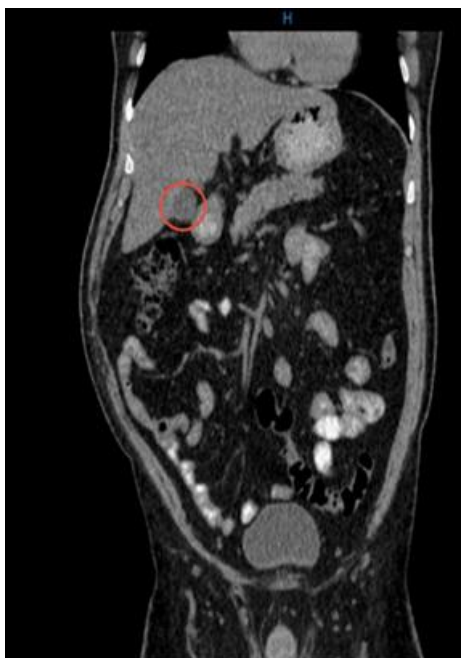


Figure 2. Abdominopelvic CT scan of patient show the mass in right renal fossa

Discussion

Local recurrence of RCC after RN usually happen within 26.5 month occurring in 2-4% of cases site of recurrence in the renal fossa, ipsilateral adrenal gland, renal vein stump or adjacent IVC, or ipsilateral retroperitoneal lymph nodes (5).According to EAU guidelines, local recurrence of RCC is defined as tumor growth solely restricted to the true renal fossa, as well as recurrences within the renal vein, the ipsilateral adrenal gland, or the regional lymph nodes. The current literature presents a limited investigation of the topic, frequently categorizing it as a locally recurrent disease (6). Localized fossa recurrence is infrequent, occurring in approximately 1-3% of cases following radical nephrectomy. More prevalent in pT3-4 than in pT1-2 and in grade III-IV disease. The majority of patients with local

recurrence of renal cell carcinoma (RCC) are identified through CT or MRI scans during post-operative follow-up. Localized recurrence is correlated with diminished survival rates (7, 8). Among these alternatives, surgical resection with negative margins is the sole therapeutic option demonstrated to correlate with enhanced survival (7). Studies have successfully reported open surgery (9, 10). Our 15-year case study detailing the local recurrence of ccRCC in the renal fossa confirmed the presence of a singular local recurrence during the metastatic evaluation. We advised the patient regarding the risks and complications associated with surgery. The patient underwent a successful surgery with a clear surgical margin, and a prolonged follow-up is planned for this individual. The present case suggested a late local recurrence of ccRCC after 15 years emphasizing

the importance of prolonged surveillance and surgical intervention. Our diagnostic pitfall is initial sampling error delay diagnosis but we repeat biopsy for confirmation. In this case limitation we do not perform genetic profile (e.g., VHL mutation). This case emphasizes individualized follow-up protocols and multidisciplinary collaboration.

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