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Pictures in Oncology

Synchronous occurrence of renal cell carcinoma and hepatocellular carcinoma in a 62-year-old patient

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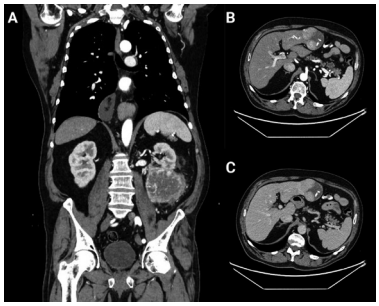

Figure 1. A. Coronal view in the venous phase showing a tumor in the left kidney; **B**. Arterial phase image demonstrating intense enhancement of the liver lesions; **C**. Venous phase image showing washout of the liver lesions

A 62-year-old male with a history of alcohol abuse, presented with urinary tract symptoms. A computer tomography (CT) scan revealed the presence of a 112 mm tumour in the left kidney with renal vein thrombus. Additionally, two lesions 58 and 14 mm were present in liver segment III — interpreted as metastatic, due to presenting radiological characteristics similar to those of renal cell carcinoma (RCC) (Fig. 1). In July 2021, the patient underwent a left-side nephrectomy with non-anatomical resection of the hepatic lesions. Histopathological examination of the kidney revealed clear cell renal carcinoma (G2, pT3a, N0, LV1, R0). The liver lesion was diagnosed as hepatocellular carcinoma (HCC) (G1, pT1b, LV0, R0).

In August 2022, a CT scan indicated the presence of enhancing lesions at the surgical site in the liver. In November 2022 the recurrence of HCC was confirmed based on radiological criteria. The lesion at the border of segments I and II was surgically resected. Histopathology confirmed HCC (G1, pT1b, LVI0, R0). The patient then underwent an active observation due to a lack of approved adjuvant treatment.

In May 2023 another CT showed a lesion in post-nephrectomy site. A laparoscopic excision followed in October 2023 which confirmed the recurrence of the RCC. In March 2025 the patient remains in active observation.

The coexistence of two independent primary malignancies is uncommon but increasingly reported. The simultaneous presence of RCC and HCC is exceptionally rare, as their concomitance is predominantly documented in case studies [1]. The diagnostic process in this case study posed a significant challenge, as two distinct cancers exhibited similar radiological features. Due to the overlapping morphological characteristics of RCC and HCC, they can closely mimic each other in imaging [1, 2]. A thorough and critical assessment of the diagnostic process is crucial in patients with synchronous cancers that share similar features.

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