Four bilateral synchronous benign and malignant kidney tumours: A case report

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SUMMARY

Synchronous occurrence of benign and malignant kidney tumours is very rare. We present the case of a 63-year-old female patient who underwent a bilateral partial nephrectomy after being diagnosed with bilateral kidney tumours by ultrasonography and a computed tomography scan. Histopathological analysis of the left kidney tumour mass revealed a chromophobe renal cell carcinoma. In the right kidney specimen clear cell renal cell carcinoma was found along with a small angiomyolipoma and renomedullary interstitial cell tumour. There were no indications for subsequent chemotherapy. At present, three years after the surgery, the patient has had no signs of relapse and maintains normal renal function.

Keywords: bilateral kidney tumours – renal cell carcinoma – angiomyolipoma

Čtyři bilaterální synchronní benigní a maligní nádory ledviny: kazuistika

SOUHRN

Synchronní prezentace benigních a maligních nádorů ledviny je velmi vzácná. Představujeme případ 63leté ženy, která podstoupila bilaterální parciální nefrektomii poté, co jí bylo vysloveno podezření na oboustranný výskyt renálního tumoru sonografickým vyšetřením a CT. Histopatologické vyšetření levé ledviny prokázalo chromofobní renální karcinom. V resekátu pravé ledviny byl nalezen světlobuněčný karcinom z renálních buněk společně s malým angiomyolipomem a renomedulárním intersticiálním nádorem. Následná chemoterapie nebyla indikována. V současnosti je pacientka bez známek relapsu a udržuje normální renální funkce.

Klíčová slova: oboustranné nádory ledvin – karcinom z renálních buněk – angiomyolipom

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Renal cell carcinomas (RCCs) are the most common renal neoplasms, accounting for 85% of all kidney tumours and representing 2.6 % of all malignancies (1). The most common subtypes of RCCs are clear cell renal cell carcinoma (CCRCC), papillary renal cell carcinoma and chromophobe renal cell carcinoma (CHRCC) (2).

The most common mesenchymal neoplasms of the kidney are angiomyolipoma (AML) and renomedullary interstitial cell tumours (RMICT) (3).

Synchronous occurrence of kidney tumours is very rare, accounting for up to 6% of all patients with sporadic enhancing renal masses (1). Synchronous occurrence of benign and malignant kidney tumours is even more rare (4-6). We present a case of bilateral synchronous RCCs (CCRCC and CHRCC) associated with AML and RMICT.

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CASE REPORT

An asymptomatic 63-year-old female patient underwent a routine abdominal ultrasound examination that revealed bilateral kidney tumours. Subsequent computed tomography scans confirmed a hypo-vascular tumour mass in the inferior pole of the left kidney measuring 2.5 cm in diameter. In the mid-portion of the right kidney a solid tumour mass measuring 4.5 cm in diameter was found. There was no visible metastasis nor invasion of renal veins and the vena cava.

The patient's tumour family history was negative. She had a history of high serum cholesterol levels and was treated with statins. Around forty years ago, during two pregnancies she was treated for pyelonephritis.

A bilateral partial nephrectomy was performed. The left-sided biopsy specimen measured 2.7 cm at its greatest diameter, contained a well-demarcated, yellowish tumour that measured 2.5 cm in diameter. Histologically, the tumour was encapsulated, composed of nests of atypical epithelial cells with distinct cell borders, eosinophylic cytoplasm, wrinkled nuclei and perinuclear haloes. The diagnosis of CHRCC was made (Fig. 1).

The right-sided biopsy specimen measured 5 cm at its greatest diameter and contained a well-demarcated yellowish tumour measuring up to 4.0 cm in diameter with foci of haemorrhaging and approximately 20% necrosis. Histologically, the tumour was encapsulated, composed of atypical epithelial cells with clear,