Multilocular Cystic Renal Cell Neoplasm of Low Malignant Potential

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Introduction

Multilocular cystic renal cell carcinoma has recently been removed from the clear cell renal cell carcinoma (ccRCC) category and redefined as ‘multilocular cystic renal neoplasm of low malignant potential (MCRNLMP)’ due to its uniformly good outcomes. MCRNLMP constitutes less than 1% of kidney tumors. They show excellent prognosis without recurrence or metastasis when diagnosed according to definite criteria. We present a case of MCRNLMP in a 60-year-old male with a left-middle renal exophytic lesion.

Case report

A 60-year-old male patient on follow-up after ESWL for nephrolitiasis had CT scan. A complicated cyst of multiple septa with measurable enhancement lesion on CT and resection planned. Macroscopically 1.9x1.7x1.5 cm, multiloculated cystic lesion filled with clear, serous fluid with foci of hemorrhage was seen. The cyst wall (0.1 cm.in thickness) and septas had smooth surface without any expansile nodule or papillary structures. Histopathologically there were few foci of clear cells in small clusters within fibrous septas, without any expansile nodule and hadn’t show any infiltrative growth. The nuclear grade of the cells was 1 for Fuhrman grading system. Immunohistochemically the cells showed EMA and PAX8 positivity distinguishing them from histiocytes. There was no necrosis or vascular invasion. The final pathologic diagnosis was MCRNLMP.

Conclusion

It is important to distinguish MCRNLMP from ccRCC with cystic or/and regressive changes because of its excellent prognosis. The presence of expansile nodules of clear cells in the septas between the cysts and necrosis indicate an ordinary, malignant, clear cell carcinoma with cystic change, conversely to our lesion. Benign renal cortical cyst is usually unilocular and lacks mural clear cells distinguishing it from MCRNLMP. Cystic nephroma also must be excluded since it contains variably sized cysts with thin fibrous septa lined by bland non-clear cells showing immunpositivity for HMWCK, CK19 and AMACR; contrarily, HMWCK-negative clear cells in our lesion.

Anahtar Kelimeler : Multilocular cystic renal neoplasm, MCRNLMP