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^{18}F-FDG PET/CT在肾脏肿瘤诊疗中的应用

Application of ^{18}F-FDG PET/CT in diagnosis and management of renal tumors

作者	单位	E-mail
张建华	北京大学第一医院核医学科, 北京 100034	
王荣福	北京大学第一医院核医学科, 北京 100034	
范岩	北京大学第一医院核医学科, 北京 100034	
许玉峰	北京大学第一医院医学影像科, 北京 100034	rongfu_wang2003@yahoo.com.cn
王鹤	北京大学第一医院医学影像科, 北京 100034	
廖栩鹤	北京大学第一医院核医学科, 北京 100034	
张旭初	北京大学第一医院核医学科, 北京 100034	
付占立	北京大学第一医院核医学科, 北京 100034	
王彦福	北京大学第一医院核医学科, 北京 100034	

中文摘要：

　　目的　评价^{18}F-FDG PET/CT在肾脏肿瘤诊断和治疗中的价值。方法　对30例CT或MRI确诊或怀疑肾脏肿瘤的患者行^{18}F-FDG PET/CT显像,22例患者行延迟显像。所有肾脏肿瘤均经或穿刺活检后病理确诊。评价^{18}F-FDG PET/CT对患者治疗方案的影响。　结果　30例中,肾细胞癌(RCC)24例,肾神经内分泌肿瘤1例,淋巴瘤3例,肺癌肾转移1例,肾脏炎性病变1例。PET/CT诊断肾脏肿瘤的灵敏度为89.66%(26/29),特异度为100%(1/1),准确率为90.00%(27/30),阳性预测值为100%(26/26),阴性预测值为25.00%(1/4)。PET/CT检出肾癌伴肾门淋巴结转移2例,远处转移5例,8例 (RCC 4例、肾淋巴瘤3例及肾转移癌1例)接受PET/CT后治疗方案发生改变。显像阳性肾癌患者Fuhrman分级高于阴性患者($P<0.05$),显像阳性肾癌平均直径大于阴性者($P<0.05$)。22例早期最大标准摄取(SUV$_{max}$)值与延迟显像SUV$_{max}$值差异无统计学意义($P>0.05$)。结论　^{18}F-FDG PET/CT可准确显示肾肿瘤患者局部病变及远处转移。对可疑肾淋巴瘤及肾转移瘤患者应行F-PET/CT显像,以明确分期并寻找原发灶。

英文摘要：

　　Objective To observe the value of ^{18}F-FDG PET/CT in diagnosis and management of renal tumors. **Methods** Thirty patients with suspected renal tumors by CT or MRI underwent ^{18}F-FDG PET/CT imaging, 22 of them underwent dual-time imaging. All patients underwent surgical resection or biopsy of the renal tumor,and the final diagnoses were based on pathology. The impact of ^{18}F-FDG PET/CT on disease management was also assessed. **Results** Twenty-four patients had renal cell carcinoma (RCC), while 1 with neuroendocrine tumor, 3 with renal lymphomas, 1 with secondary renal tumor and with renal inflammatory disease. PET showed a sensitivity of 89.66% (26/29), specificity of 100% (1/1), accuracy of 90.00% (27/30), positive predictive value of 100% (26/26) and negative predictive value of 25.00% (1/4) for renal tumors. ^{18}F-PET/CT detected 2 patients with local metastatic lymph node and 5 with distant metastatic lesions. The treatment of 8 patients (4 with RCC, 3 with renal lymphoma and 1 with renal metastasis) was altered according to PET/CT. The Fuhrman grade of the patients with FDG positive malignant lesions were higher than that of the patients with FDG negative lesions ($P<0.05$). The median size of FDG positive tumors was greater than that of FDG negative tumors ($P<0.05$). In RCC, the different of maximal standard uptake value (SUV$_{max}$) between early and delayed imaging had no statistical difference ($P>0.05$). **Conclusion** PET/CT can accurately detect local and metastatic lesions in patients with renal tumor. Patients with suspected renal lymphoma or secondary renal tumor should underwent PET/CT imaging for accurate staging or detecting the primary tumor.

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