

PET/CT显像在妇科恶性肿瘤术后复发及转移中的临床应用价值

《现代肿瘤医学》[ISSN:1672-4992/CN:61-1415/R] 期数: 2019年04期 页码: 657-660 栏目: 论著(影像诊断) 出版日期: 2019-01-08

Title: Clinical value of PET/CT imaging in the recurrence and metastasis of gynecologic malignant tumors postoperatively

作者: 陈兰兰; 郝珊瑚; 张国旭; 武晓丹; 战莹
沈阳军区总医院核医学科, 辽宁 沈阳 110016

Author(s): Chen Lanlan; Hao Shanhu; Zhang Guoxu; Wu Xiaodan; Zhan Ying
Department of Nuclear Medicine, The General Hospital of Shenyang Military Command, Liaoning Shenyang 110016, China.

关键词: 妇科生殖器肿瘤; 复发; 肿瘤转移; 体层摄影术; X线计算机; 正电子发射断层显像术; 脱氧葡萄糖

Keywords: gynecologic genital tumor; recurrence; tumor metastasis; tomography emission-computed; tomography X-ray computed; positron emission tomography; deoxyglucose

分类号: R737.3

DOI: 10.3969/j.issn.1672-4992.2019.04.029

文献标识码: A

摘要: 目的: 探讨正电子发射断层显像(PET/CT)在诊断妇科恶性肿瘤术后复发与转移中的临床应用价值。方法: 回顾性分析2015年1月至2016年12月, 在我中心行PET/CT检查的56例妇科恶性肿瘤术后患者的全身PET/CT的显像结果, 确诊依据为术后病理结果、血糖类抗原125 (CA125) 持续升高水平和临床随访结果, 评价PET/CT对妇科恶性肿瘤术后复发、转移的诊断效能。结果: 56例患者中, 经病理结果、血CA125持续升高水平、临床随访结果证实, 肿瘤复发及转移者25例, 没有复发、转移者26例, 假阳性者3例, 假阴性者2例, PET/CT显像在妇科恶性肿瘤术后复发及转移的灵敏度、特异性、准确率分别为92.6% (25/27)、89.7% (26/29)、91.1% (51/56); 转移灶分为阴道残端、全身淋巴结、远处器官转移, PET/CT显像对各转移灶的灵敏度及特异性分别为87.5%(7/8)和97.9%(47/48)、95.0% (19/20) 和91.7% (33/36)、91.3% (21/23) 和90.9% (30/33); PET/CT显像发现全身多部位、多器官转移的6人, 改变了临床分期及治疗方案。结论: PET/CT显像对妇科恶性肿瘤术后复发及转移的诊断, 具有较高的灵敏度和特异性, 对肿瘤术后复发及转移的临床分期及治疗方案的确定具有非常大的指导意义。

Abstract: Objective: To investigate the clinical value of positron emission tomography (PET/CT) in the recurrence and metastasis of gynecologic malignant tumors. Methods: We analyzed retrospectively the imaging results of 56 patients with postoperative gynecological malignant tumors who underwent PET/CT in our center from January 2015 to December 2016. The diagnosis was evaluated by postoperative pathological results, the elevated level of blood glucose anti-tumor antigen 125 (CA125) and the clinical follow-up results. The diagnostic efficacy of PET/CT on the recurrence and metastasis of gynecological malignant tumor was evaluated. Results: In 56 patients, the pathological results, the continuous elevation of serum CA125 level and clinical follow-up results confirmed that 25 cases of tumor recurrence and metastasis, 26 cases of metastasis without recurrence, 3 cases of false positive, 2 false negative cases. The specificity, sensitivity and accuracy of PET/CT imaging in gynecological malignant tumor recurrence and metastasis were 92.6%(25/27), 89.7%(26/29), 91.1% (51/56), respectively. Lesions were divided into vaginal stump, systemic lymph node and distant metastasis, the sensitivity and specificity of the PET/CT imaging of each metastasis were 87.5%(7/8) and 97.9%(47/48), 95.0% (19/20) and 91.7%(33/36), 91.3%(21/23) and 90.9%(30/33). PET/CT imaging showed that 6 patients have multiple sites and organ metastasis of the whole body, changed the clinical staging and treatment plan. Conclusion: PET/CT imaging has high sensitivity and specificity for metastasis and recurrence of gynecologic malignancies postoperatively. It has great guideline for the clinical stage and the treatment plan of postoperative recurrence and metastasis of gynecologic malignancies.

参考文献/REFERENCES

- [1] Cerfolio RJ,Ojha B,Bryant AS,et al.The accuracy of integrated PET-CT compared with dedicated PET alone for the staging of patients with nonsmall cell lung cancer [J] .Ann Thorac Surg,2004,78(3): 1017-1023.
- [2] Gu XZ.Modern oncology clinical part [M] .Beijing:Beijing Medical University Peking Union Medical College Press,1996:543-554. [谷钺之. 现代肿瘤学临床部分 [M] . 北京: 北京医科大学、中国协和医科大学联合出版社, 1996:543-554.]
- [3] Wu HB,Wang QS,Wang MF,et al.The preliminary application of Furosemide intervention on PET/CT imaging for tumor of urogenital system [J] .Chin J Nucl Med,2005,25(4):206-208. [吴湖炳, 王全师, 王明芳, 等. 呋塞米介入试验在泌尿生殖系统肿瘤18F-FDG PET/CT显像中的应用 [J] .中华核医学杂志, 2005, 25 (4) : 206-208.]
- [4] Wu HB,Wang QS,Wang MF,et al.The application of PET/CT to detect the recurrence and metastasis of ovarian cancer [J] .Chin J Nucl Med,2006,26(4):197-200. [吴湖炳, 王全师, 王明芳, 等.PET/CT显像在探测卵巢癌术后复发、转移中的应用 [J] .中华核医学杂志, 2006,26 (4) : 197-200.]
- [5] Tang L,Zhong WB,Chen L,et al.The application value of TCT combined with HPV in the screening of cervical lesions [J] .J Clin Res,2016,33 (7) :1417-1418. [唐莉, 钟文彬, 陈亮, 等.TCT联合高危型HPV监测在宫颈病变筛查中的应用价值 [J] .医学临床研究, 2016,33 (7) :1417-1418.]
- [6] Weber WA,Grosu AL,Czemin J.Technology insight:advances in molecular imaging and an appraisal of PET/CT scanning [J] .Nat Clin Pract Oncol,2008,5(3):160-170.
- [7] Zhao SJ,Wu N,Zheng R,et al.Prognostic significance of SUVmax on 18FDG-PET/CT in patients with surgically resected non-small cell lung cancer [J] .Oncology Progress,2014,12(2):205-211. [赵世俊, 吴宁, 郑容, 等.18F-FDG PET/CT SUVmax 与非小细胞肺癌手术患者预后的关系 [J] .癌症进展, 2014,12 (2) : 205-211.]
- [8] Reuter KL,Griffin T,Hunter RE.Comparison of abdominopelvic computed tomography results and findings at second-look laparotomy carcinoma patients [J] .Cancer,1989,63:1123-1126.
- [9] Zhang FX,Zhang J,Chen SY,et al.Value of 18F-FDGPET/CT SUVmax of preoperative assessment of primary tumor infiltration and metastases in patients with endometrial cancer [J] .Chin J Nucl Med Mol Imaging,2017,37(2): 75-80. [张凤仙, 张建, 陈素芸, 等.18F-FDGPET/CT显像SUVmax对子宫内膜癌术后浸润及转移的评估价值 [J] .中华核医学与分子影像杂志, 2017,37 (2) : 75-80.]
- [10] Zheng H,Chen JZ,Luo RC,et al.The value of 18F-FDG PET/CT in the diagnosis and treatment of cervical cancer [J] .The Practical Journal of Cancer,2009,24(5):494-497. [郑航, 陈锦章, 罗荣城, 等.18F-FDG PET/CT显像对宫颈癌诊断及治疗的影响 [J] .实用癌症杂志, 2009,24 (5) : 494-497.]
- [11] Sun N,Zhao JH,Qiao WL,et al.Role of 18F-FDG PET/CT in diagnosis and postoperative surveillance of endometrial cancer [J] .Chinese Computed Medical Imaging,2013,19(3):278-281. [孙娜, 赵晋华, 乔文礼, 等.18F-FDG PET/CT在子宫内膜癌诊断和随访中的临床价值 [J] .中国计算机呈像杂志, 2013,19 (3) : 278-281.]
- [12] Yu SS,Liu XL.The value of 18F-FDG PET/CT in the management of patients with cervical carcinoma [J] .Journal of Medical Imaging,2015,25(10):1882-1885. [于珊珊, 刘晓龙.18F-FDG PET/CT在宫颈癌的应用价值 [J] .医学影像学杂志, 2015,25 (10) : 1882-1885.]
- [13] Wei J,Wang SZ.Value of 18F-FDG PET/CT imaging in the evaluation of metastasis recurrence of cervical cancer after radical operation [J] .Clin Res,2017,34(2):261-263. [魏静,王书中.18F-FDG PET/CT显像在评估宫颈癌根治术后转移或复发的价值分析 [J] .医学临床研究,2017,34 (2) : 261-263.]
- [14] Chen DD,Wu HB,Wang QS,et al.Performance 18F-FDG PET/CT in the diagnosis of recurrent and metastatic endometrial cancer [J] .Chin J Nucl Med,2016,36(1):39-42. [陈丹丹, 吴湖炳, 王全师, 等.18F-FDG PET/CT显像在子宫内膜癌术后复发及转移中的价值 [J] .中华核医学杂志, 2016,36 (1) : 39-42.]
- [15] Zhou WL,Wu HB,Wang QS,et al.Application of 18F-FDG PET/CT for the diagnosis of cervical cancer [J] .Chin J Nucl Med,2008,28(3):178-181. [周文兰, 吴湖炳, 王全师, 等.18F-FDG PET/CT在宫颈癌诊断中的应用 [J] .中华核医学杂志, 2008,28 (3) : 178-181.]
- [16] Chen F,You XY,Yu CJ,et al.Influences of histologic types in cervical cancer and differentiation variation over the uptake of 18F-FDG [J] .Chin J Nucl Med Mol Imaging,2012,32 (3) : 223-224. [陈峰, 尤徐阳, 郁春景, 等.宫颈癌组织类型与分化差异对18F-FDG标准摄取值的影响 [J] .中华核医学与分子影像杂志, 2012,32 (3) : 223-224.]
- [17] Yang L,Wang ZH.Significance of lymph node resection in endometrial carcinoma and its indication [J] .Chin Pract Gynecol Obstet,2011,27(11):817-820. [杨露, 王泽华.子宫内膜癌淋巴结切除意义及指征 [J] .中国实用妇科与产科杂志, 2011,27 (11) : 817-820.]
- [18] Kinjyo Y,Kudaka W,Ooyama T,et al.Ovarian preservation in young women with endometrial cancer of endometrioid histology [J] .Acta Obstet Gynecol Scand,2015,94(4):430-434.
- [19] Kitajima K,Murakami K,Yamasaki E,et al.Accuracy of 18F-FDG PET/CT in detecting pelvic and paraaortic lymph node metastasis in patients with endometrial cancer [J] .AJR Am J Roentgenol,2008,190 (6) : 1652-1658.

备注/Memo: -

更新日期/Last Update: 1900-01-01