

Whole-body PET with FDG is useful for following up an ovarian cancer patient with only rising CA-125 levels within the normal range

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In April 2000, a 54-year-old woman underwent surgery for ovarian serous cell carcinoma (stage IIb). After initial treatment, the patient underwent a physical examination, ultrasound examination and measurement of serum CA-125 levels every month. Although neither diagnostic imaging (ultrasound and computed tomography) nor physical examination showed any evidence of recurrence, the CA-125 level rose slowly and continuously within the normal range. In March 2001, an increased accumulation of ^{18}F -fluorodeoxyglucose (FDG) in the pelvic cavity was seen on a positron emission tomography (PET) scan obtained 2 weeks before a relapse of a malignant lesion was diagnosed by gadolinium-enhanced MRI (Gd-MRI). It is reasonable to suppose that FDG-PET is clinically useful for detecting an early, small region of relapsed ovarian cancer. Moreover, FDG-PET may be helpful for determining whether a patient who has a continuous rising CA-125 level within the normal range should be treated in the absence of relapse regions detected by conventional methods.

Key words: FDG-PET, ovarian cancers, CA-125