

## Clinical value of FDG-PET in the follow up of post-operative patients with endometrial cancer

Tsuneo SAGA,\* Tatsuya HIGASHI,\* Takayoshi ISHIMORI,\* Marcelo MAMEDE,\* Yuji NAKAMOTO,\*  
Takahiro MUKAI,\* Toru FUJITA,\* Kaori TOGASHI,\* Shigeo YURA,\*\* Toshihiro HIGUCHI,\*\*  
Masato KITA,\*\* Shingo FUJII\*\* and Junji KONISHI\*

\*Department of Nuclear Medicine and Diagnostic Imaging and \*\*Department of Obstetrics and Gynecology,  
Graduate School of Medicine, Kyoto University

**Objective:** The clinical usefulness of FDG-PET in the follow up of post-operative patients with endometrial cancer was retrospectively evaluated. **Methods:** Twenty-one post-operative patients with endometrial cancer received 30 FDG-PET examinations to evaluate recurrence or response to treatment. The findings of FDG-PET were compared with their serum levels of tumor markers, CT and/or MRI findings, and the final outcome. Results of FDG-PET were also correlated with the clinical course of each patient. **Results:** In detecting recurrent lesions and evaluating treatment responses, FDG-PET, with the help in anatomic information by CT/MRI, showed better diagnostic ability (sensitivity 100.0%, specificity 88.2%, accuracy 93.3%) compared with combined conventional imaging (sensitivity 84.6%, specificity 85.7%, accuracy 85.0%) and tumor markers (sensitivity 100.0%, specificity 70.6%, accuracy 83.3%). FDG-PET had no false-negative results, suggesting the possibility of its use as the first-line examination in a patient's follow-up. FDG-PET could detect unknown lesions in 4 cases, and, as reported for other malignancies, FDG-PET affected the patient management in one-third of the cases. Furthermore, the results of FDG-PET correlated well with the clinical outcome of the patients, with patients with negative PET results tending to show disease-free courses. **Conclusions:** These results suggest that, despite the limited number of patients studied, FDG-PET was accurate in detecting recurrence and evaluating therapeutic response, and could afford important information in the management of post-operative patients with endometrial cancer. FDG-PET also appeared to have a possibility to predict the outcome of each patient.

**Key words:** FDG-PET, endometrial cancer, recurrence, treatment response