

THE DIAGNOSIS OF BREAST CANCER RECURRENCE IN ASYMPTOMATIC PATIENTS WITH ELEVATED CA 15.3 : THE PLACE OF (¹⁸F) FDG-PET.

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Aim :

The aim of this study was to assess the value of FDG-PET for the diagnosis of breast cancer recurrence in asymptomatic patients with elevated CA 15.3 and negative conventional imaging.

Material and Methods :

Between October 2003 and February 2005, 24 women (median age 45 years) followed for breast cancer (19 Infiltrating Ductal Carcinoma, 5 Infiltrating Lobular Carcinoma) with CA 15.3 levels above the cut-off value of 30 U/ml were explored for suspected recurrence. In 12 cases, the tumor marker doubling time was below 80 days (29-71d) and over 100 days (110-240d) in the 12 other patients. Conventional imaging included CT, ultrasonography, mammography, conventional bone scintigraphy, magnetic resonance imaging.

FDG scintigraphy was performed with a PET-CT Philips Gemini camera one hour after injection of 5 MBq/Kg of (¹⁸F) FDG.

Results:

Among the 24 patients, the diagnosis of recurrent breast cancer was established with conventional imaging in 17 patients. Bone metastases were detected by bone scintigraphy in 8 patients, liver metastases were detected by ultrasonography in 3 patients. CT identified 6 patients with multifocal metastasis. FDG scintigraphy performed in 7 patients with negative conventional imaging was positive in all cases. Bone metastasis were detected in 2 patients, liver metastases and axillary nodes in 1 patient, lung metastases and cervical nodes in 1 patient, peritoneal carcinosis in 1 patient, mediastinal nodes in 1 patient and multifocal metastases in 1 patient. There was no significant difference in tumor marker doubling times in patients diagnosed by conventional imaging and those diagnosed by TEP.

Conclusion:

These results confirm that FDG-PET is useful for the detection of recurrent breast cancer in patients with elevated tumor marker and negative conventional imaging. The tumor marker increase had been explained by FDG-PET in all patients with negative conventional imaging.

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