

## Differential FDG accumulation associated with GLUT-1 expression in a patient with lymphoma

Hirofumi KOGA, Yoshio MATSUO, Masayuki SASAKI, Makoto NAKAGAWA, Koichiro KANEKO, Kazutaka HAYASHI, Yasuo KUWABARA and Hiroshi HONDA

*Department of Clinical Radiology, Graduate School of Medical Sciences, Kyushu University*

We herein report a case of malignant lymphoma that showed differential FDG accumulation associated with the degree of glucose transporter 1 (GLUT-1) expression. For clinical staging purpose, FDG-PET was performed on a 47-year-old male who had been diagnosed to have malignant lymphoma, diffuse medium B-cell type. Although an X-ray CT showed multiple and bulky lymphadenopathy including bilateral submandibular, deep cervical, supraclavicular, axillar, hilar, mesenteric and paraaortic regions, FDG-PET showed a high accumulation only in the bilateral submandibular and deep cervical region. An immunohistochemical analysis demonstrated a high GLUT-1 expression in the right cervical lymph node, which showed a high FDG uptake. On the other hand, a bone marrow specimen with diffuse lymphoma cell involvement indicated showed no FDG accumulation and also revealed a negative GLUT-1 expression. This case suggests that the differential FDG accumulation shown by lesions is associated with the degree of GLUT-1 expression in patients with lymphoma.

**Key words:** FDG PET, GLUT-1, malignant lymphoma