Relatively high F-18 fluorodeoxyglucose uptake in paranasal sinus aspergillosis: A PET study

Joji Kawabe,* Teruo Osamura,** Koichi Koyama,** Miyuki Shishido,** Hiroko Sakamoto,*** Toshiko Kobashi,** Wang Li Juan,* Makoto Shigematsu,* Ryusaku Yamada** and Hiroshi Ochi*

*Division of Nuclear Medicine, **Department of Radiology, and ***Department of Otorhinolaryngology, Osaka City University Medical School

We report a case of maxillary sinus (MS) aspergillosis studied by positron emission tomography (PET) with F-18 fluorodeoxyglucose (FDG) and by 68Ga-citrate (Ga) single photon emission computed tomography (SPECT). The FDG uptake existed in the lesion and along the inflammatory edematous mucous membrane of the MS. Ga uptake occurred not only in the lesion and in the mucous membrane but also in the MS. Relative quantification, the standardized uptake value (SUV) of the lesion showed relatively high FDG uptake (3.7). But in other reports, many malignant head and neck tumors had a SUV below 3.7. It was thought to be difficult to differentiate between aspergillosis and malignant head and neck tumors by FDG-PET.

Key words: invasive aspergillosis, maxillary sinus, fluorodeoxyglucose (FDG), positron emission tomography (PET), 68Ga-citrate (Ga) single photon emission computed tomography (SPECT)