

# Two Cases of Gastric Cancer as Detected by Positron Emission Tomography during a Medical Checkup

Kenji TANAKA<sup>1)3)</sup>, Toshiomi KUSANO<sup>1)</sup>, Ryosuke TANAKA<sup>1)</sup>,  
Takafumi TAKAO<sup>1)</sup>, Hiroyuki YUZAWA<sup>1)</sup>, Masamori SHIMABUKU<sup>1)</sup>,  
Kazuyuki TACHIBANA<sup>1)</sup>, Reiji OCHIAI<sup>1)</sup>, Tsuyoshi YOSHIDA<sup>2)</sup>,  
Koji MIKAMI<sup>3)</sup> and Yuichi YAMASHITA<sup>3)</sup>

<sup>1)</sup> *Digestive Disease Center, Tenjinkai Koga Hospital*

<sup>2)</sup> *PET Diagnostic Image Center, Tenjinkai Koga Hospital*

<sup>3)</sup> *Department Gastroenterological Surgery, Fukuoka University, School of Medicine*

**Abstract :** Positron emission tomography using 2-deoxy-2-[<sup>18</sup>F] fluorodeoxyglucose (FDG-PET) has been used to detect malignancies associated with certain kinds of tumors. Data regarding the use of FDG-PET scan for evaluating gastric cancer are scarce. We herein report two cases of gastric cancer, which were detected by FDG-PET. Neither patient had any complaints and a FDP-PET examination was performed as a routine medical checkup. The first patient was a 65-year-old male. A high accumulation of FDG was observed in the gastric wall and the peripheral gastric wall. We defined gastric cancer based on an endoscopic examination and a histological examination. A total gastrectomy was performed and a histological examination showed the tumor invading proper muscular with lymph node metastasis. The second patient was a 62-year-old male. A high accumulation of FDG was observed in the gastric wall. An endoscopic examination and histological examination showed gastric cancer in the middle part of the stomach. A distal gastrectomy was performed and a histological examination showed a tumor invading the submucosal layer without any lymph node metastasis. An evaluation of tumor locality using FDG-PET, the existence of tumor and lymph node metastasis, was compatible with the final pathological findings.

**Key words :** Positron emission tomography (PET), Gastric cancer