Multifocal Colonic Lesions Detected by ^{18}F -FDG PET/CT: Correlation with Histopathology and Gross Specimen

Dae-Weung Kim · Sang-Ah Jung · Soon-Ah Park ·
Chang Guhn Kim

Received: 9 February 2010 / Revised: 10 March 2010 / Accepted: 27 April 2010 / Published online: 22 May 2010
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Abstract A 73-year-old man underwent ^{18}F -fluorodeoxyglucose positron emission tomography/computed tomography (^{18}F -FDG PET/CT) for the staging of colon cancer. The ^{18}F -FDG PET/CT revealed three colonic lesions. The histopathologic examination of the postoperative gross specimen revealed a tubular adenoma, a tubulovillous adenoma and an adenocarcinoma. The maximal standardized uptake value (SUVmax) of a tubulovillous adenoma was

much higher than that of adenocarcinoma. This patient could be considered as a representative case highlighting that SUVmax is not a reliable indicator for discriminating colon cancer from colonic adenomas.

Keywords ^{18}F -FDG PET/CT · Colon cancer · Colonic adenoma

D.-W. Kim (✉) · S.-A. Jung · S.-A. Park · C. G. Kim
Department of Nuclear Medicine,
Wonkwang University School of Medicine,
344-2 Shinyong-Dong,
Iksan, Jeollabuk-do 570-711, Republic of Korea
e-mail: akaxan@nate.com

S.-A. Park · C. G. Kim
Institute of Wonkwang Medical Science,
Wonkwang University School of Medicine,
344-2 Shinyong-Dong,
Iksan, Jeollabuk-do 570-711, Republic of Korea

Fig. 1 a–c A 73-year-old man presented with intermittent rectal bleeding. Subsequent colonoscopy revealed three polypoid masses in the colorectum, and one of them was histopathologically diagnosed as an adenocarcinoma. The patient underwent ^{18}F -fluorodeoxyglucose positron emission tomography/computed tomography (^{18}F -FDG PET/CT) for staging. ^{18}F -FDG PET/CT revealed three colonic lesions and no evidence of locoregional lymph node or distant metastasis. Curative resection was performed and the histopathologic examination of the postoperative gross specimen revealed a tubular adenoma [**a** 1-cm sized, maximal standardized uptake value (SUVmax) 4.8], a tubulovillous

adenoma (**b** 1-cm sized, SUVmax 11.3) and an adenocarcinoma (**c** 2-cm sized, SUVmax 5.5). In several reports, the mean SUV of colon cancer was higher than that of colonic adenoma [1, 2]. However, the cutoff value between benign colonic adenomas and colon cancer was not clear, and as in our patient, some colonic adenomas presented with much higher ^{18}F -FDG uptake than colon cancer [3–5]. Our patient could be considered as a representative case highlighting that SUVmax is not a reliable indicator for discriminating colon cancer from colonic adenomas

Acknowledgements This paper was supported by Wonkwang University in 2010.

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