

FDG uptake in colonic villous adenomas

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Colonic adenomas constitute 70–80% of all colorectal polyps, and their clinical significance relates primarily to their relationship with colorectal cancer. The malignant potential of the polyps detected by FDG-PET is unknown, as not all the colonic lesions identified by FDG-PET represent colorectal malignancies. The purpose of this study was to investigate the rate of FDG-PET positivity within colonic villous adenomas. A pathology database search was performed to identify all patients diagnosed with colonic villous adenoma between June 1, 1996 and December 1, 2000. Patients with a pathologic diagnosis of colonic villous adenoma and who also had a FDG-PET study up to 1 month before colonoscopy were included in this study. FDG-PET findings were compared with pathological features. Of more than 4,000 patients, six patients were diagnosed with colonic adenoma on subsequent colonoscopy following FDG-PET study. Based on the pathological findings, these 6 patients had a total of 2 villous and 9 tubulovillous adenomas. Five of the 6 patients showed foci of increased FDG uptake in the region of the colon that corresponded to the villous adenoma(s) detected on colonoscopy, which accounted for a true-positive rate of 83.3% (5/6 subjects). Focal lesions in the colon seen on FDG-PET examinations need to be investigated further, even though some of these will prove to be villous adenomas rather than colorectal carcinomas. Future studies in a larger number of patients are needed to evaluate the relationship of histopathological features of colonic polyps and detectability of these lesions by FDG-PET.

Key words: colonic villous adenoma, FDG-PET, colorectal carcinoma, colonoscopy