

Villous Tumors of the Large Intestine: Pathological Features and Mucin Phenotypic Expression

Satoshi NIMURA ¹⁾, Akinori IWASHITA ²⁾, Keisuke SATO ^{1),3)},
Hironari SHIWAKU ³⁾, Kazuki NABESHIMA ¹⁾, and Morishige TAKESHITA ¹⁾

Department of ¹⁾ Pathology and ³⁾ Surgery, Faculty of Medicine, Fukuoka University, Fukuoka, Japan

²⁾ Department of Pathology, Chikushi Hospital, Fukuoka University, Fukuoka, Japan

Abstract: Although colorectal villous tumors are generally considered to be malignancies, questions remain about their pathogenesis. In this study, fifteen lesions of colorectal villous tumors from 15 patients were examined histopathologically and immunohistochemically to analyze pathological features, mucin phenotypes, and CD10 expression. The major anatomical sites of the colorectal villous tumors were the sigmoid colon and rectum. Macroscopically, villous tumors were generally broad-based, sessile lesions with a coarse, somewhat friable surface consisting of numerous fronds. Histologically, these leaf-like projections consisted of a narrow core of lamina propria covered by a sheet of neoplastic epithelial cells. Eight lesions (53.3%) of 15 villous tumors included carcinomatous components (extremely well- and well-differentiated adenocarcinoma in 6 and mucinous adenocarcinoma in 2). Based on their mucin expression profiles and CD10 expression, low-grade components in 15 villous tumors showed mixed gastric and intestinal phenotype. There was no significant difference in mixed gastric and intestinal phenotypic expression between low-grade and high-grade components. In all the adenocarcinoma components, the mucin expression pattern of intramucosal components was similar to that of invasive components. All the villous tumors were negative for CD10. In conclusion, our data suggested that colorectal villous tumors may be potentially or substantially malignant and that analysis of mucin expression profiles may be a potential ancillary tool for estimating the pathway of tumorigenesis of colorectal villous tumors. Our results also suggest that villous tumor of the large intestine may be a precursor of mucinous adenocarcinoma.

Key words: Villous tumors of the large intestine, Villous structure, Adenoma, Adenocarcinoma, Mucin phenotypic expression