Detection of the ITGA4, SFRP2 and p16 Promoter methylation in stool for colorectal neoplasm detection in Korean patients- A preliminary report

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**Purpose:** Colorectal cancer (CRC) screening method using stool DNA testing has shown greater detection rate than conventional fecal occult blood testing. The aim of this study was to determine the sensitivity and specificity of detection method using three promoter methylation markers of the ITGA4, SFRP2 and p16 for colorectal adenoma and carcinoma. **Methods:** The methylation status of the ITGA4, SFRP2 and p16 promoter in the bisulfite-modified stool DNA was investigated in a blinded manner by methylatoin specific PCR (MSP) from 31 endoscopically diagnosed healthy controls, 25 patients with adenomas and 30 patients with CRC. **Results:** Methylated ITGA4, SFRP2 and p16 were detected in 36.7%, 60.0%, and 40.0% of CRC, 16.0%, 44.0%, and 24.0% of colorectal adenoma, respectively. The sensitivities of the combined study using three markers for the detection of CRC and colorectal adenoma were 70.0% and 72.0%. The specificity of those testing methods was 96.8%. **Conclusion:** Our results have demonstrated that promoter methylations of ITGA4, SFRP2, and p16 in stool samples demonstrated high sensitivity and specificity for the detection of colorectal adenoma and CRC. This newly developed testing could be a useful non-invasive alternative for CRC screening in Korean patients.

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The Diagnostic Yield of Ileoscopy in Young Patients

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**Background/Aims:** Routine evaluation of the terminal ileum during screening colonoscopy remains controversial and indications for ileoscopy are not well documented. There was no available data about value of ileoscopy in young patients. Therefore, we studied the diagnostic yields of ileoscopy in symptomatic young aged man less than 25 years old. **Methods:** We prospectively investigated 307 cases performing routinely ileoscopy in symptomatic young aged men who underwent colonoscopy from July 2005 to April 2006. Medical records including symptoms, colonoscopic data, and its association of the terminal ileal lesions were assessed. **Results:** Of the 307 patients, macroscopically abnormalities on the terminal ileum were found in 48 patients (15.7%) moreover, isolated abnormalities on the terminal ileum without colorectal disease were found in 19 patients (6%). Ileal biopsy was obtained in 43 of the 48 patients and histologic findings showed non-specific ileitis (33, 10.7%), Crohn’s ileitis (8, 2.6%), and intestinal tuberculosis (2, 0.7%). **Conclusions:** Ileoscopy had significant diagnostic yields(3.3%) during colonoscopy in symptomatic young aged man. Therefore, we must evaluate terminal ileum as a standard colonoscopy, especially young patients.