Clinicopathologic Study of Intestinal Spirochetosis in Japan With Special Reference to HIV Infection Status and Species Types: Analysis of 5,265 Consecutive Colorectal Biopsies

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Previous studies have demonstrated that intestinal spirochetosis (IS) occurs relatively commonly in homosexual men, especially men with HIV infection. The purpose of this study is to clarify clinicopathologic features of IS in Japan with special reference to HIV infection status and species types. We retrospectively reviewed 5,265 consecutive colorectal biopsies from 4,254 patients examined from January 2008 to October 2011. The patients comprised 55 HIV-positive (1.3%) and 4,199 HIV-negative (98.7%) persons. The diagnosis of IS was based on the histologic features of IS. The length of the spirochetes was measured by digital microscopy because causative spirochetes have been reported to be Brachyspira aalborgi, measuring 2 to 6 µm, or Brachyspira pilosicoli, measuring 4 to 20 µm. Among 55 HIV-positive patients, 53 (96%) are men and 2 (4%) are women with a mean age of 48 years (range, 26-73 years). Among 4,199 HIV-negative patients, 2,505 (60.0%) are men and 1,694 (40.3%) are women with a mean age of 64 years (range, 9-93 years). Among 55 HIV-positive patients, IS was diagnosed in 3 patients (5%). All 3 patients are men, have watery diarrhea, and show no histologic abnormality other than IS. The mean length of IS was 8.5 µm (range, 7-11 µm). Among 4,199 HIV-negative patients, IS was diagnosed in 73 (1.7%), with 55 (75%) being men and 18 (25%) being women. Nine cases (12%) had clinical symptoms such as diarrhea. The mean length of IS was 3.5 µm (range, 2-8 µm). Significant correlation was found between sex (P < .01), and age (P < .01), and IS. The length of IS in HIV-positive patients was significantly longer than in HIV-negative patients (P < .05). No significant difference was found between HIV status and IS (P = .09). It is suggested that B pilosicoli infection could be more common in HIV-positive patients with IS. No significant correlation is found between HIV status and IS infection.

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