

学位論文の要旨

氏名 福庭 暢彦

学位論文名 Prevalence of Irritable Bowel Syndrome-like Symptoms in
Ulcerative Colitis Patients With Clinical and Endoscopic Evidence
of Remission: Prospective Multicenter Study

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著者名 Nobuhiko Fukuba, Shunji Ishihara, Yasumasa Tada, Naoki
Oshima, Ichiro Moriyama, Takafumi Yuki, Kousaku
Kawashima, Yoshinori Kushiyama, Hirofumi Fujishiro,
Yoshikazu Kinoshita

論文内容の要旨

INTRODUCTION

Irritable bowel syndrome (IBS) is a chronic functional disorder of the intestinal tract in the absence of organic abnormalities and characterized by clinical symptoms such as abdominal pain and discomfort, along with bowel habit alterations. Several studies have investigated the presence of IBS-like symptoms in ulcerative colitis (UC) patients without evidence of ongoing disease activity. In those, remission was mainly defined by clinical symptoms. However, the prevalence of IBS-like symptoms in UC patients with endoscopic evidence of remission shown by mucosal healing remains unknown. We investigated UC patients with clinical as well as endoscopic remission evidence, and evaluated the presence of IBS-like symptoms.

MATERIAL AND METHODS

This study was prospectively conducted from May 2011 to February 2012 at 1 university hospital and 3 general hospitals in Japan. Diagnoses of UC were based on standard clinical, endoscopic, and histological criteria. All UC patients (≥ 18 years old) with a clinically good appearance as defined by their attending physician were assessed, while patients with hematochezia, history of colectomy, or C-reactive protein >0.5 mg/dl were excluded. IBS diagnosis was evaluated by questionnaire results according to the Rome III criteria. Clinical

remission was defined as clinical activity index (CAI) score ≤ 4 for ≥ 6 months and endoscopic remission as Matts grade ≤ 2 for ≥ 3 months. Differences for prevalence of IBS-like symptoms between the UC and control groups were evaluated using a chi-squared test. A *P* value of <0.05 was considered to be significant. The study protocol was approved by the Ethics Committee of Shimane University and written informed consent was obtained from all subjects.

RESULTS AND DISCUSSION

A total of 172 UC patients with clinical evidence of remission (CAI ≤ 4) were enrolled in the study by their physicians, then carefully screened by 2 inflammatory bowel disease experts prior to analysis. Of those, 43 agreed to undergo a colonoscopy examination, with 39 showing endoscopic evidence of remission (Matts grade ≤ 2). In addition, 330 healthy subjects were enrolled during the study period as a control group.

The prevalence rate of IBS-like symptoms in UC patients with clinical evidence of remission (CAI ≤ 4) was 26.7% [46/172, 95% confident interval (CI): 21.0-33.8%], while that in the controls was 4.8% (95% CI: 3.0-7.7%) (26.7% vs 4.8%, OR: 7.17, 95% CI: 3.94-13.0, *p* <0.01). Of the 39 UC patients with endoscopic evidence of remission (Matts grade ≤ 2), 10 met the Rome III criteria (25.6%, 95%CI: 14.6-41.1%), which was similar to that found in UC patients with clinical evidence of remission (26.7%). The prevalence rate of IBS-like symptoms was significantly higher than that in the controls (25.6% vs. 4.8%, OR: 6.77, 95%CI: 2.87-16.0, *p* <0.01). When endoscopic remission was strictly defined as Matts grade 1, prevalence decreased to 15.4% (95%CI: 4.3-42.2%) and there was no statistical difference as compared to the controls (15.4% vs. 4.8%, OR 3.57, 95%CI 0.83-15.8, *p* =0.14).

The present results indicate that the prevalence of IBS-like symptoms in UC patients with clinical and endoscopic evidence of remission is significantly higher than that in healthy individuals. In addition, we precisely analyzed endoscopic findings in UC patients and found that the prevalence rate in those with complete endoscopic remission (Matts grade 1) was lower than that in patients with clinical findings of remission (Matts grade ≤ 2). Since Matts grade 2 is defined as an endoscopic finding with residual mild mucosal damage, our findings suggest that low grade colonic inflammation may partially influence the presence of IBS-like symptoms in UC patients in remission.

The main limitation of this study is the low number of patients who underwent colonoscopy examinations, as those were only conducted after receiving consent. Since patients

in clinical remission were in relatively good health as compared to those in an active stage, it is understandable that they might not agree to a colonoscopic examination after achieving remission. However, the low number analyzed might have affected the results. To confirm the influence of endoscopic findings on the presence of IBS-like symptoms in UC patients, it is important to analyze a large number of subjects who underwent a colonoscopy.

CONCLUSIONS

The prevalence of IBS-like symptoms in UC patients with clinical and endoscopic remission findings was significantly higher than that in control subjects. Furthermore, the prevalence in patients with complete endoscopic remission was decreased. Our findings suggest that residual low-grade inflammation influences IBS-like symptoms in UC patients in remission.