

P594 Bowel ultrasound is useful in predicting relapse in patients with Ulcerative Colitis in remission

Masa Maeda¹, Shintaro Sagami^{2,3}, Moya Tachima⁴, Yoko Yamana⁴, Ryo Karafutaba⁵, Yusuke Miyahara⁶, Aoi Nagai¹, Masaru Nakano⁷, Toshiyuki Mori⁸, Taku Kobayashi^{1,2,3}

¹Center for Advanced IBD Research and Treatment, Kitasato University Kitasato Institute Hospital, Tokyo, Japan; ²Department of Gastroenterology, Kitasato University Kitasato Institute Hospital, Tokyo, Japan; ³Department of Gastroenterology, Kitasato University School of Medicine, Kanagawa, Japan;

Objectives: Bowel ultrasound (BUS) is attention as a non-invasive monitoring tool for Ulcerative colitis (UC). BUS is useful in predicting endoscopic and histologic severity and determining treatment response. However, it is unclear whether BUS can predict the relapse of UC in remission.

Design: A single-center retrospective cohort study
Study period: Jul 2018 to Jul 2021

Patients: UC patients who underwent BUS during clinical remission (Patient Reported Outcome 2 or 3 and no rectal bleeding) for at least 1 month and followed up for 1 year

Outcomes: The maintenance of clinical remission² at 1 year after BUS
¹Relapse: A) rectal bleeding score ≥ 2 or stool frequency score ≥ 2 , B) treatment intensification for symptoms

Table 1. Patient's Characteristics

Variables	n/N
Age, years (mean \pm SD)	46.7 \pm 12
Male / Female (%)	37 (83.8%) / 7 (15.8%)
Perianitis / Left-sided (%)	39 (87.2%) / 19 (42.2%)
Disease duration (months, median, IQR)	124 (61-147)
MUC-1/2/3/4	1/1/1/1/1/1
Current treatment	
5-ASA (%)	11 (24.7%)
Topical therapy (%)	30 (67.2%)
Immunomodulator (%)	24 (53.4%)
Biologics (%)	1 (2.2%)
Anti-TB at agents (%)	15 (33.3%)
Hydrocortisone (%)	2 (4.4%)
History of prior relapse (%)	19 (42.2%)
History of systemic steroid (%)	17 (37.8%)

Abbreviation: MUC, Mucosal Ulceration Colitis; IQR, Interquartile Range; SD, Standard Deviation; BUS, bowel ultrasound; MUC, Mucosal Ulceration Colitis; PC, Perianitis; CM, Crohn's Colitis; IQR, Interquartile Range; TB, Tuberculosis; I, Intensity of color Doppler signal; MUC = 1, 2, 3, 4, 5, 6 = 1, presence of MUC (absent), 1, presence of color Doppler signal

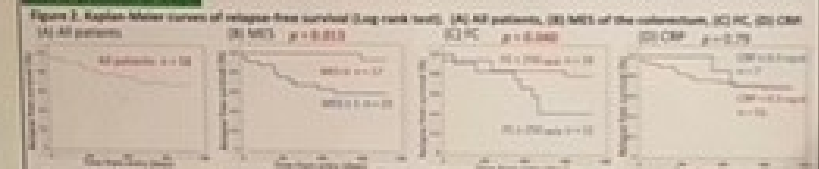


Table 2. Univariate analysis (Cox proportional hazards model) for the risk factor of subsequent clinical relapse

Variables	HR (95%CI)	P-value	Variables	HR (95%CI)	P-value
Perianitis	0.81 (0.34-2.42)	0.65	History of systemic steroid	0.87 (0.34-2.26)	0.76
Disease duration ≥ 124 (median, months)	1.85 (0.70-4.94)	0.22	CRP ≥ 0.3 mg/dL	0.82 (0.29-2.36)	0.79
Treatment			PC ≥ 250 μ g/d	1.58 (0.58-4.37)	0.36
Immunomodulator	0.24 (0.07-0.88)	0.03	MUC $\geq 4, 2$	0.22 (0.04-0.98)	0.04
Biologics	0.71 (0.24-2.21)	0.54	MUC ≥ 1	0.79 (0.23-2.82)	0.69

BUS in UC patients in remission can predict relapse using MUC. In particular, the MUC score $\geq 4, 2$ is associated with a lower risk of relapse and could be a treatment target alternative to endoscopic finding.

Impact of immunomodulating treatment in (repeated) COVID-19 vaccination on B-anti patients.

Results of the 2021 COVID-19 Study: A Japan Cohort Study of COVID-19 Immunization. Shiro Teraoka¹, Junji Saito², Akira Iwamoto³, An Sakurai⁴, Akira Kikuchi⁵, Hiroaki Yamashita⁶, Hiroaki Nakamura⁷, Hiroaki Nakamura⁸, Hiroaki Nakamura⁹, Hiroaki Nakamura¹⁰, Hiroaki Nakamura¹¹, Hiroaki Nakamura¹², Hiroaki Nakamura¹³, Hiroaki Nakamura¹⁴, Hiroaki Nakamura¹⁵, Hiroaki Nakamura¹⁶, Hiroaki Nakamura¹⁷, Hiroaki Nakamura¹⁸, Hiroaki Nakamura¹⁹, Hiroaki Nakamura²⁰

Introduction: Immunomodulators (IMM) and biological immune-modulating therapies (BIMT) for treat could potentially interfere with humoral immune response against COVID-19 infection. A relationship between IMM, immune-modulating treatment medicines and SARS-CoV-2 antibody titer.

Methodology: A cross-sectional, prospective, observational cohort study of two Japanese university hospitals. Patients with MUC of the gut (Crohn's disease, ulcerative colitis), joint (rheumatoid arthritis, spondyloarthritis) and skin (psoriasis, hidradenoma) were included. Patient data and serological samples were collected. Data collected in 2 pre-defined timepoints. Results from inclusion period 1 and 2 are presented.

Table 3. Immunization

Variables	n/N	Mean (SD)	Median (IQR)	P-value
Age, years	100	46.7 (12.1)	46 (34-58)	
Male / Female (%)	100	83.8 / 16.2		
Perianitis / Left-sided (%)	100	87.2 / 42.2		
Disease duration (months, median, IQR)	100	124 (61-147)		
MUC-1/2/3/4	100	1/1/1/1/1/1		
Current treatment	100			
5-ASA (%)	100	24.7		
Topical therapy (%)	100	67.2		
Immunomodulator (%)	100	53.4		
Biologics (%)	100	2.2		
Anti-TB at agents (%)	100	33.3		
Hydrocortisone (%)	100	4.4		
History of prior relapse (%)	100	42.2		
History of systemic steroid (%)	100	37.8		

relapse-free survival (Log-rank test). (A) All patients, (B) MUC of the colon, (C) PC, (D) CM. p-values: (A) All patients p=0.0002, (B) MUC of the colon p=0.013, (C) PC p=0.0002, (D) CM p=0.79.

