■ Sat-031 ■

Usefulness of adding symptoms to partial Mayo score for predicting endoscopic mucosal healing in UC

[1]서울대학교병원 내과, [2]분당서울대학교병원 내과

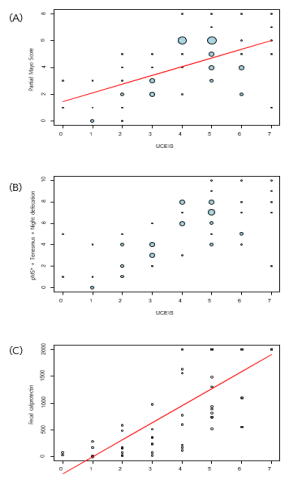
*문정민[1], 윤혁[2], 신철민[2], 박영수[2], 김나영[2], 이동호[2], 김주성[1]

Background/Aims: Endoscopy is the gold standard for assessing activity of ulcerative colitis (UC). However, its use is limited due to high cost, burdensome preparation and invasiveness. Previous studies have proved usefulness of fecal calprotectin (FCP) in predicting endoscopic mucosa healing (EMH) over partial Mayo score (pMS). The aim of this study was to evaluate whether additional symptoms to pMS can improve the prediction of EMH. **Methods:** We analyzed data of consecutive 58 patients with UC (male: 67%, mean age: 39.5 years old) in Seoul National University Bundang Hospital between May 2017 and May 2018. Besides pMS, additional four symptoms (urgency, tenesmus, mucous stool, and night defecation) were collected within 5 weeks of endoscopy performance. FCP was measured using the Quantum Blue® Calprotectin rapid test and was collected within 7 days of endoscopy. Endoscopic activity was graded using Ulcerative Colitis Endoscopic Index of Severity (UCEIS) and EMH was defined as UCEIS 0-2. **Results:** FCP proved to be better in correlation with UCEIS in comparison to pMS. (pMS: r=0.520666, p<0.001; FCP: r=0.785943, p<0.001) Combination of additional four symptoms and pMS demonstrated stronger correlation with UCEIS (r=0.6932, p<0.001), but failed to prove superiority over FCP. In predicting EMH, FCP (cut-off value: 512.4 mg/kg) exhibited sensitivity of 92.3% and specificity of 80.0% (AUC: 0.925, 95% confidence interval: 0.857-0.992); whereas additional symptoms to pMS (cut-off value: 7) revealed sensitivity of 92.3% and specificity of 70.7% (AUC: 0.904, 95% confidence interval: 0.816-0.992). **Conclusions** Although additional symptoms to pMS aids in predicting EMH, it still failed to validate superiority over FCP. Clinical symptoms such as mucous stool may overlap with symptom of irritable bowel syndrome; they should be interpreted with caution in UC patients.

Table 2 Univariate analysis regarding UCEIS mucosal CR

	UCEIS 2-8 (n=52)	UCEIS 0-1 (n=6)	*p-value*
Partial mayo score	4.4 ± 2.0	1.3 ± 1.4	*0.000*
Urgency	37 (78.7%)	2 (33.3%)	*0.060*
Tenesmus	34 (72.3%)	2 (33.3%)	*0.143*
Mucous stool	27 (57.4%)	1 (16.7%)	*0.147*
Night defecation	27 (58.7%)	1 (16.7%)	*0.132*
Fecal calprotectin	1079.4 ± 772.9	97.4 ±109.6	*0.000*

Figure 1 Association between UCEIS vs partial Mayo Score (A); partial Mayo Score in addition to Tenesmus and Night defecation (B); and Fecal calprotectin (C)



*pMS, Partial Mayo score
(A) Spearman's correlation coefficient r= 0.5206666 P-value < 0.001
(B) Spearman's correlation coefficient r = 0.6632149 P-value < 0.001
(C) Spearman's correlation coefficient r = 0.785943 P-value < 0.001

■ Sat-032 ■

THE EFFECTIVENESS OF ORAL PHLOROGLUCIN AS PREMEDICATION FOR NON-SEDATIVE ESOPHAGOGASTRODUODENOSCOPY

계명대학교 동산의료원

*배진목, 이유진, 이현직, 이주엽, 박경식, 조광범, 정혜인

Background/Aims: Antispasmotic agents are commonly injected before esophagogastroduodenoscopy (EGD) to inhibit gastrointestinal peristalsis. If antispasmotics can be taken orally, that may be convenient in patients who are undergoing non-sedative EGD. This study aimed to evaluate the effectiveness of oral Phloroglucin (Flospan®) as premedication for non-sedative EGD. **Methods:** A Prospective, double-blinded, placebo-controlled, randomized controlled trial was conducted at a single tertiary hospital. Subjects who scheduled to undergo non-sedative EGD were randomly assigned to receive oral Phloroglucin (Flospan®) or placebo at 10 minutes before EGD. The degree of peristaltic movement was evaluated at the beginning and the end of the procedure by independent investigators. We recorded adverse events, taste of drug, willingness to take this premedication at the next examination and the difficulty of intragastric observation which were assessed by endoscopists who performed the procedure. **Results:** Overall, 140 subjects were included in the study (Phloroglucin 70, placebo 70, age mean±SD, 66.31±9.37, male 47.8%). The degree of peristalsis in Phloroglucin group was significantly lower compared with that of placebo at the beginning of the procedure (p=0.02) and tended to be lower at the end of the procedure, although it did not show statistical significance (p=0.064). The difficulty of intragastric observation was significantly lower in Phloroglucin group compared with placebo at the both time period (beginning of the procedure: p=0.002, end of the procedure: p=0.009). Both groups showed comparable adverse events, taste of the drug and willingness to take this premedication at the next examination. **Conclusions:** Oral Phloroglucin(Flospan®) significantly suppress gastrointestinal peristalsis during non-sedative EGD compared with placebo.

Figure 1. Allocation of subjects

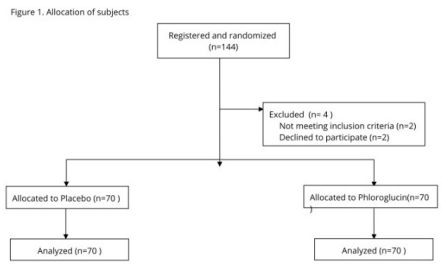


Table 1. Baseline characteristics of patients (n = 140)

Characteristics	Placebo (n = 70)	Flospan (n = 70)	*p*-value
Age, year	66.31±9.37	65.97±11.32	0.845
Male gender	38(54.3%)	35(50%)	0.612
BMI, kg/m^2	23.94±3.22	23.69±3.26	0.647
No. (%) of prior endoscopic procedures			
None	3(4.3%)	2(2.9%)	0.699
1 or 2	12(17.1%)	16(22.9%)	
=3	55(78.6%)	52(72.3%)	
Endoscopic examination time, min,mean(SD), range	4.39±1.80	4.06±1.38	0.229
History of abdominopelvic surgery,	19(27.1%)	15(21.4%)	0.430
ASA score, mean ± SD	1.33±0.61	1.30±0.49	0.760
Comorbidity			
Diabetes mellitus	15(21.4%)	7(10%)	0.063
Hypertension	28(40.0%)	28(40.0%)	1.000
Cerebrovascular disease	4(5.7%)	3(4.3%)	1.000
Liver cirrhosis	4(5.7%)	4(5.7%)	1.000
Thyroid disease	3(4.3%)	0	0.245
Kidney disease	3(4.3%)	1(1.4%)	0.620
Cardiovascular disease	14(20.0%)	8(11.4%)	0.164
Malignancy	2(2.9%)	1(1.4%)	1.000
Endoscopy indication			
Gastric cancer screening	57(81.4%)	62(88.6%)	0.237
Gastrointestinal disturbance*	23(32.9%)	22(31.4%)	0.856
History of gastric neoplasia	3(4.3%)	4(5.7%)	1.000
Anemia, positive result of stool occult blood	1(1.4%)	1(1.4%)	1.000
Personal history of malignancy	3(4.3%)	0	0.245
Body weight loss	0	1(1.4%)	1.000
Biopsy	40(57.1%)	43(61.4%)	0.606

Data are n (%) or mean ± SD.
* Gastrointestinal disturbance includes epigastric soreness, pain, discomfort, reflux, dyspepsia and nausea, etc)
BMI, Body mass index; ASA, American Society of Anesthesiologists comorbidity