1   **Supporting Information**

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3   **Initial Treatment Failure as a Predictor of Proximal Extension in Patients**

4   **with Newly Diagnosed Limited Ulcerative Colitis: A Retrospective Cohort**

5   **Study with Propensity Score-Matched Analysis**

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19 **Supplementary Table 1** Comparison of outcomes between the ITF and ITS

20 groups, before PSM

	ITF group (*n* = 57)	ITS group (*n* = 176)	*p* value
Primary outcome			
PE, *n* (%)	35 (61.4)	37 (21.0)	< 0.001*
Secondary outcomes			
Colectomy, *n* (%)	8 (14.0)	4 (2.3)	0.002*
Hospitalization, *n* (%)	22 (38.6)	18 (10.2)	< 0.001*
Refractoriness to medication, *n* (%)	30 (52.6)	44 (25.0)	< 0.001*

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22 **p* < 0.05

23 *ITF* initial treatment failure, *ITS* initial treatment success, *PE* proximal extension,

24 *PSM* propensity score matching

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26 **Supplementary Table 2** Patient characteristics at the onset of UC in the no

27 remission and early relapse groups, before PSM

	No remission group (*n* = 37)	Early relapse group (*n* = 20)	SMD
Age, year (IQR)	35.0 (23.0–47.0)	31.5 (24.3–38.3)	0.01
Sex: male, *n* (%)	19 (51.4)	11 (55.0)	0.07
Disease location at diagnosis, *n* (%)			
E1	9 (24.3)	13 (65.0)	0.90
E2	28 (75.7)	7 (35.0)	
MES, *n* (%)			
1	10 (27.0)	3 (15.0)	0.38
2	22 (59.5)	12 (60.0)	
3	5 (13.5)	5 (25.0)	
AOI, *n* (%)	9 (24.3)	3 (15.0)	0.24
Appendectomy, *n* (%)	1 (2.7)	0 (0.0)	0.24
Smoking habit, *n* (%)			
Never-smoker	29 (78.4)	14 (70.0)	0.22
Former smoker	6 (16.2)	5 (25.0)	
Active smoker	2 (5.4)	1 (5.0)	
EIMs, *n* (%)	8 (21.6)	5 (25.0)	0.08
WBC, /µl (IQR)	6690.0	6220.0	0.54

	(5910.0–8600.0)	(4945.0–6627.5)	
HGB, g/dl (IQR)	13.3 (12.6–13.9)	13.2 (12.2–14.4)	0.01
Plt, ×10^4/µl (IQR)	25.7 (20.1–32.7)	22.1 (19.8–28.4)	0.03
Alb, g/dl (IQR)	4.2 (4.0–4.5)	4.3 (4.1–4.4)	0.07
CRP, mg/dl (IQR)	0.1 (0.0–0.4)	0.1 (0.0–0.3)	0.21
IBD family history, *n* (%)	5 (13.5)	0 (0.0)	0.56
Initial therapy, *n* (%)			
5-ASA oral alone	16 (43.2)	5 (25.0)	0.25
5-ASA topical alone	0 (0.0)	0 (0.0)	< 0.001
5-ASA oral and topical	7 (18.9)	6 (30.0)	0.51
5-ASA oral and steroid oral	8 (21.6)	3 (15.0)	0.17
Dose of steroid oral, mg/day (IQR)	35.0 (27.5–40.0)	35.0 (27.5–37.5)	0.42
5-ASA oral and steroid topical	3 (8.1)	3 (15.0)	0.22
Steroid topical alone	0 (0.0)	2 (10.0)	0.47
No treatment	3 (8.1)	1 (5.0)	0.13

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29 *5-ASA* 5-aminosalicylic acid, *Alb* albumin, *AOI* appendiceal orifice inflammation,

30 *CRP* C-reactive protein, *E1* proctitis, *E2* left-sided ulcerative colitis, *EIMs* extra-

31 intestinal manifestations, *HGB* hemoglobin, *IBD* inflammatory bowel disease,

32 *IQR* interquartile range, *MES* Mayo endoscopic score, *Plt* platelet count, *SMD*

33 standardized mean difference, *PSM* propensity score matching, *UC* ulcerative
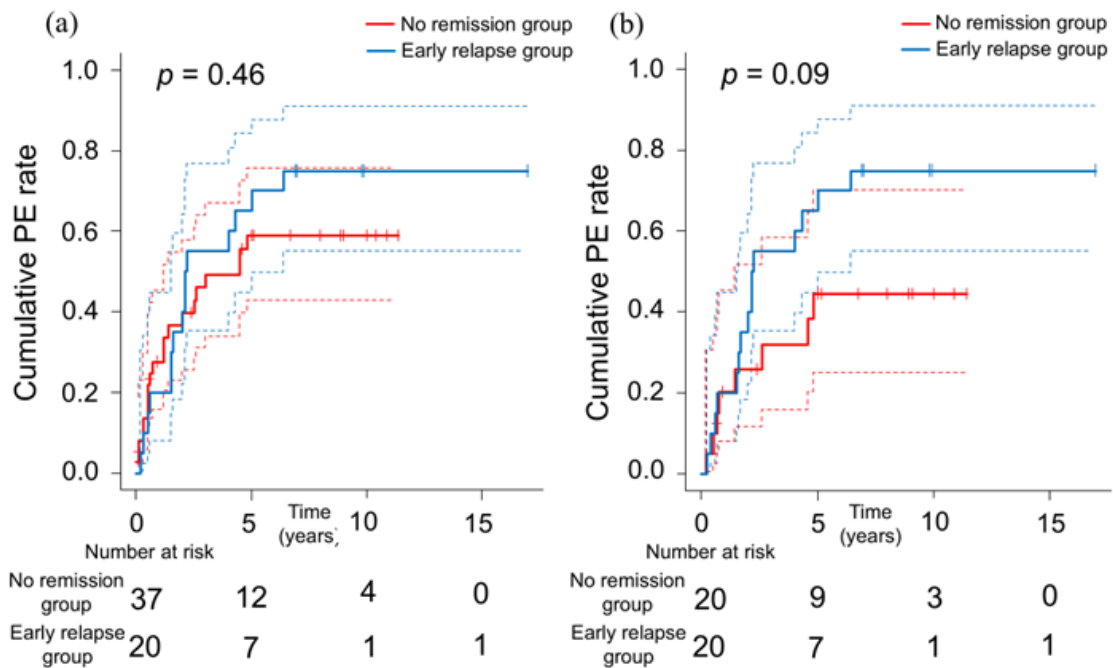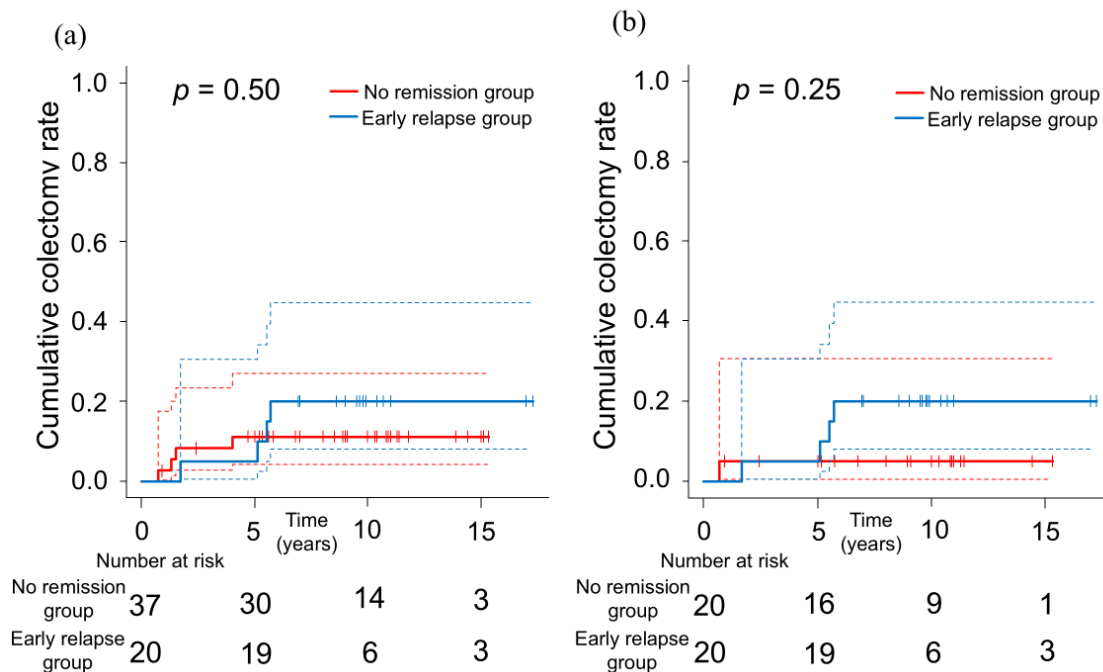
34 colitis, *WBC* white blood cell count

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36 **Supplementary Table 3** Comparison of outcomes between the no remission

37 and early relapse groups, before PSM

	No remission group (*n* = 37)	Early relapse group (*n* = 20)	*p* value
Primary outcome			
PE, *n* (%)	20 (54.1)	15 (75.0)	0.16
Secondary outcomes			
Colectomy, *n* (%)	4 (10.8)	4 (20.0)	0.43
Hospitalization, *n* (%)	13 (35.1)	9 (45.0)	0.57
Refractoriness to medication, *n* (%)	19 (51.4)	11 (55.0)	1.00

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39 *PE* proximal extension, *PSM* propensity score matching

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Supplementary Fig. 1 Comparison of the cumulative PE rates between the no remission and early relapse groups among patients with limited UC. (A) Before PSM, the cumulative PE rate was not significantly different between the no remission and early relapse groups (p = 0.46). (B) After PSM, the cumulative PE rate tended to be higher in the early relapse group than in the no remission group, although the difference did not reach statistical significance (p = 0.09). The red solid line represents the no remission group, and the blue solid line represents the early relapse group. Dotted lines indicate the 95% CI. *CI* confidence interval, *PE* proximal extension, *PSM* propensity score matching, *UC* ulcerative colitis

(a)

(b)

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54 **Supplementary Fig. 2** Comparison of the cumulative colectomy rates between

55 the no remission and early relapse groups among patients with limited UC. (A)

56 Before PSM, the cumulative colectomy rate was not significantly different

57 between the no remission and early relapse groups (*p* = 0.50). (B) After PSM,

58 the cumulative colectomy rate was still comparable between the no remission

59 and early relapse groups (*p* = 0.25). The red solid line represents the no

60 remission group, and the blue solid line represents the early relapse group.

61 Dotted lines indicate the 95% CI. *CI* confidence interval, *PSM* propensity score

62 matching, *UC* ulcerative colitis