

Supplementary Table 1. Classification and evaluation of small bowel lesions for enteroscopy**Definitions of Endoscopic Scores**

Variables	0	1	2	3
Size of ulcers, cm	None	0.1-0.5	0.5-2	>2
Ulcerated surface, %	None	<10	30-50	>30
Affected surface, %	Unaffected	<50	50-75	>75
Presence of stenosis	None	Single, can be passed	Multiple, can be passed	Cannot be passed

Definitions of Endoscopic Segmentation

Terminal ileum	≤30 cm from the ileocecal valve
Proximal ileum	30-300 cm from the ileocecal valve
Jejunum	the proximal part of small bowel, excluding the section defined as the proximal ileum and duodenum

Supplementary Table 2. Baseline clinical features of patients stratified by biologics

Variables	Infliximab (n=64)	Ustekinumab (n=28)	Vedolizumab (n=18)
Male, n (%)	53 (82.8)	20 (71.4)	15 (83.3)
Age, years, median (IQR)	30 (24-36)	38 (30-43)	33 (25-39)
Disease duration, years, median (IQR)	1.1(0.3-2.4)	1.8 (0.7-3.5)	0.7 (0.4-2.7)
Smoking history, n (%)	6 (9.4)	2 (7.1)	1 (5.6)
Disease behavior, n (%)			
B1: Inflammatory	21 (32.8)	5 (17.9)	4 (22.2)
B2: Stricturing	39 (60.9)	16 (57.1)	7 (38.9)
B3: Penetrating	4 (6.3)	7 (25)	7 (38.9)
Perianal disease, n (%)	39 (60.9)	15 (53.6)	11 (61.1)
HBI, median (IQR)	7 (5.3-7.8)	6 (4.3-7.0)	6.5 (5.8-7.3)
HBI >4, n (%)	58 (90.6)	21 (75)	15 (83.3)
CRP, mg/L, median (IQR)	1.6 (0.5-9.3)	3.8 (1.7-9.2)	3.8 (0.7-8.4)
CRP >3 mg/L, n (%)	25 (39.1)	15 (53.6)	9(50)
Albumin, g/L, median (IQR)	39 (37-42)	37 (35-41)	40(35-43)
Hemoglobin, g/L, median (IQR)	131 (119-140)	128 (112-136)	111 (99-143)
Prior biologic exposure, n (%)	10 (15.6)	13 (46.4)	10 (55.6)
Concomitant treatment, n (%)			
Steroids	3 (4.7)	0	0
Immunomodulator	23 (35.9)	8 (28.6)	2 (11.1)
Baseline BAE evaluation			
Modified SES-CD, median (IQR)	7 (3-16)	8 (7-9)	7 (5-9)
Bowel segment with active disease ^a , n (%)			
Jejunum	15 (23.4)	13 (46.4)	11 (61.1)
proximal ileum	58 (90.6)	27 (96.4)	18 (100)
Very large ulcers (>2.0 cm), n (%)			
Jejunum	4 (6.3)	3 (10.7)	4 (22.2)
Proximal ileum	20 (31.3)	11 (39.3)	4 (22.2)
Dose optimization, n (%)	5 (7.8)	0	2 (11.1)

IQR: interquartile range; HBI: Harvey-Bradshaw Index; CRP: C-reactive protein; BAE: Balloon-assisted enteroscopy; SES-CD: simple endoscopic score for Crohn's disease.

^aBowel segment with active disease was defined as having a segmental modified SES-CD ≥ 3 , accompanied by any size ulcer.

Supplementary Table 3. Endoscopic outcomes among all biologic-treated patients at 1 year

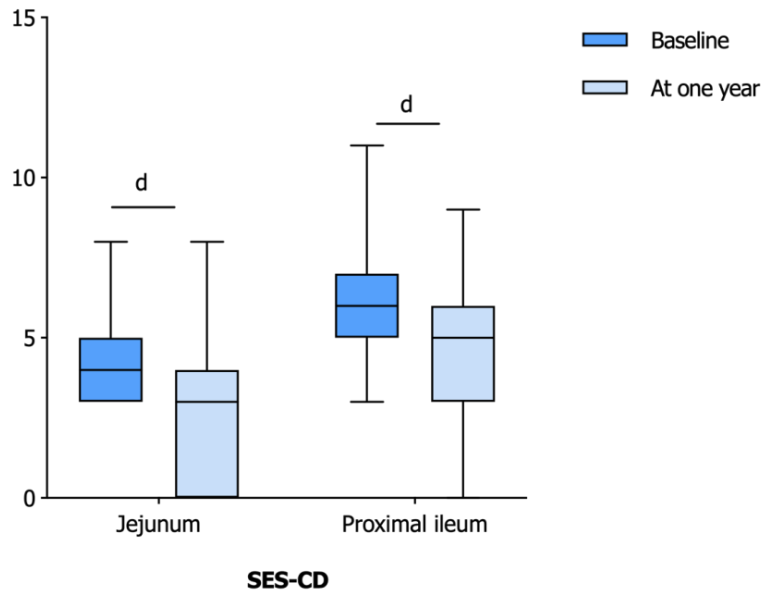
Complete endoscopic outcomes among all patients (n=110)			
Treatment	N	Endoscopic healing, n (%)	P(pairwise) ^a
Infliximab	64	19 (29.6)	N/A
Ustekinumab	28	3 (10.7)	0.090
Vedolizumab	18	1 (5.5)	0.059
Treatment	N	Endoscopic response, n (%)	P(pairwise) ^a
Infliximab	64	27 (42.2)	N/A
Ustekinumab	28	8 (28.6)	0.216
Vedolizumab	18	2 (11.1)	0.015
Treatment	N	Ulcer healing, n (%)	P(pairwise) ^a
Infliximab	64	23 (35.9)	N/A
Ustekinumab	28	5 (17.9)	0.083
Vedolizumab	18	2 (11.1)	0.083
Segmental endoscopic outcomes in jejunum (n=39)			
Treatment	N	Endoscopic healing, n (%)	P(pairwise) ^a
Infliximab	15	8 (53.3)	N/A
Ustekinumab	13	3 (23.1)	0.137
Vedolizumab	11	1 (9.1)	0.036
Treatment	N	Endoscopic healing, n (%)	P(pairwise) ^a
Infliximab	15	8 (53.3)	N/A
Ustekinumab	13	7 (53.8)	1.000
Vedolizumab	11	2 (18.2)	0.109
Treatment	N	Ulcer healing, n (%)	P(pairwise) ^a
Infliximab	15	8 (53.3)	N/A
Ustekinumab	13	5 (38.5)	0.431
Vedolizumab	11	1 (9.1)	0.036
Segmental endoscopic outcomes in proximal ileum (n=103)			
Treatment	N	Endoscopic healing, n (%)	P(pairwise) ^a
Infliximab	58	13 (22.4)	N/A
Ustekinumab	27	2 (7.4)	0.166
Vedolizumab	18	1 (5.5)	0.107
Treatment	N	Endoscopic healing, n (%)	P(pairwise) ^a
Infliximab	58	20 (34.5)	N/A
Ustekinumab	27	4 (14.8)	0.106
Vedolizumab	18	2 (11.1)	0.056
Treatment	N	Ulcer healing, n (%)	P(pairwise) ^a
Infliximab	58	15 (25.9)	N/A
Ustekinumab	27	2 (7.4)	0.091
Vedolizumab	18	1 (5.5)	0.130

N/A, not available; ^aInfliximab as the comparator.

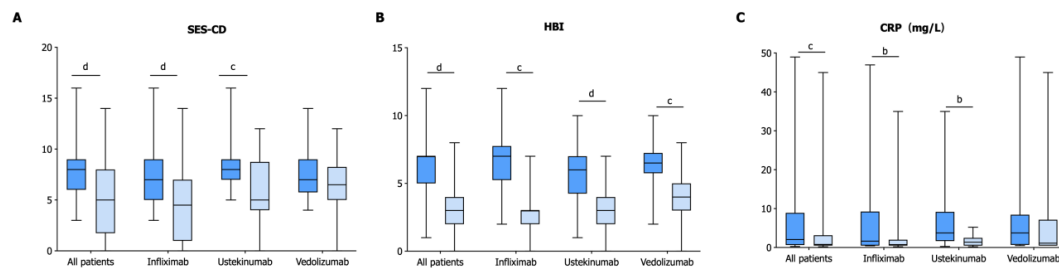
Supplementary Table 4. The rate of very large / large ulcer healing after 1 year of biologic therapy

Complete ulcer healing among patients with very large ulcers (>2 cm) at baseline (n=35)			
Treatment	N	Complete ulcer healing, n (%)	P(pairwise) ^a
Infliximab	18	8 (44.4)	N/A
Ustekinumab	13	0	0.010
Vedolizumab	4	0	0.254
Complete ulcer healing among patients with large ulcers (0.5-2 cm) at baseline (n=49)			
Treatment	N	Complete ulcer healing, n (%)	P(pairwise) ^a
Infliximab	26	6 (23.1)	N/A
Ustekinumab	12	1 (8.3)	0.395
Vedolizumab	11	0	0.151
Complete ulcer healing among patients with very large ulcers (>2 cm) at baseline (n=53)			
Segment	N	Complete ulcer healing, n (%)	P
Jejunum	11	3 (27.3)	0.664
Proximal ileum	35	6 (17.1)	
Complete ulcer healing among patients with large ulcers (0.5-2 cm) at baseline (n=64)			
Segment	N	Complete ulcer healing, n (%)	P
Jejunum	18	5 (27.8)	0.247
Proximal ileum	46	7 (15.2)	

N/A, not available; ^aInfliximab as the comparator.



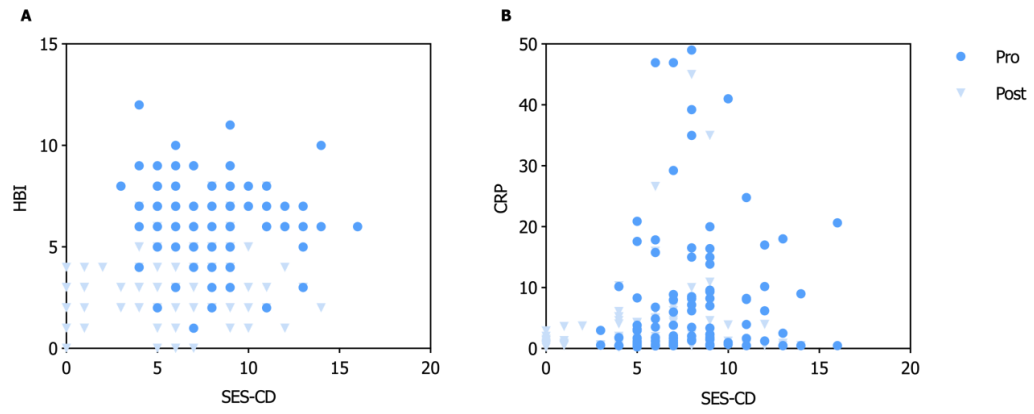
Supplementary Figure 1. The changes of segmental modified SES-CD in the jejunum and proximal ileum. $dP < 0.0001$.



Supplementary Figure 2. The changes of modified SES-CD, HBI, and CRP

levels. A: SES-CD, B: HBI, C: CRP (mg/L). SES-CD: simple endoscopic score for Crohn's disease; HBI: Harvey-Bradshaw Index; CRP: C-reactive protein.

^b $P < 0.01$, ^c $P < 0.001$, ^d $P < 0.0001$.



Supplementary Figure 3. The correlation between the modified SES-CD and HBI/CRP levels