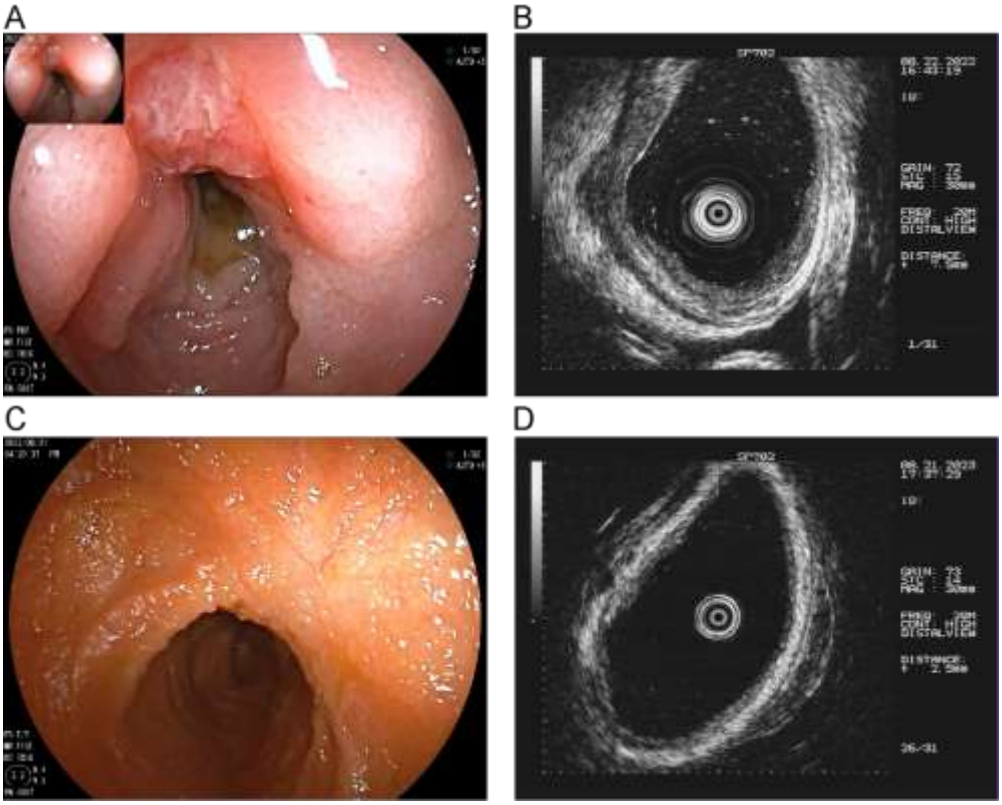
Detailed procedures for multiple imputation of missing CRP and FC values

Missing values for CRP and FC were handled using multiple imputation (MI) with predictive mean matching (PMM). Five imputed datasets were generated under the assumption that the missing data were missing at random. The imputation model included age, sex, disease duration, CDAI, SES-CD, LRG, CRP and FC. For regression analyses, estimates from the imputed datasets were combined according to Rubin's rules. Sensitivity analyses were conducted by comparing the pooled estimates from the imputed datasets with those obtained from complete-case analyses. Relative differences in effect estimates were calculated, and differences <10% were considered to indicate good consistency.

Logistic regression model construction and variable selection

Univariable and multivariable logistic regression analyses were performed to identify factors independently associated with DBE-EUS-defined transmural inflammation. Candidate variables included disease behaviour, disease duration, corticosteroid use, biologic agents, prior intestinal resection, SES-CD score, and serum LRG levels. Variables with a p value <0.10 in univariable analyses were entered into multivariable logistic regression models. Multicollinearity was assessed using variance inflation factors (VIFs) and calibration was assessed using the Hosmer–Lemeshow goodness-of-fit test.



Supplementary Figure 1 Representative DBE-EUS images of transmural inflammation and transmural healing in small-bowel Crohn's disease. (A, B) Endoscopic and EUS images showing transmural inflammation. (C, D) Endoscopic and EUS images showing transmural healing.

Supplementary Table 1 Logistic regression analysis of factors associated with transmural inflammation defined by TWT ≥ 2.65 mm

	Univariable		Multivariable	
	OR (95% CI)	***p***	**OR (95% CI)**	***p***
Disease behaviour	0.62 (0.32-1.29)	0.206		
Disease duration	1.00(0.99-1.01)	0.513		
Corticosteroid use	0.87 (0.26-2.90)	0.821		
Biologic agents	1.11(0.47-2.64)	0.801		
Prior intestinal resection	1.62 (0.31-8.37)	0.562		
SES-CD	1.46 (1.28-1.66)	<0.0001	1.24(1.07-1.43)	0.003
LRG	1.37 (1.22-1.54)	<0.0001	1.23(1.09-1.40)	0.001

Supplementary Table 2 Logistic regression analysis of factors associated with transmural inflammation defined by SMT ≥ 0.95 mm

	Univariable		Multivariable	
	OR (95% CI)	***p***	**OR (95% CI)**	***p***
Disease behaviour	0.57 (0.28-1.16)	0.128		
Disease duration	1.00 (0.99-1.01)	0.666		
Corticosteroid use	0.50 (0.14-1.74)	0.278		
Biologic agents	1.01(0.43-2.37)	0.969		
Prior intestinal resection	0.93 (0.18-4.82)	0.939		
SES-CD	1.35 (1.22-1.50)	<0.0001	1.22(1.08-1.38)	0.001
LRG	1.25 (1.15-1.36)	<0.0001	1.14(1.03-1.25)	0.007