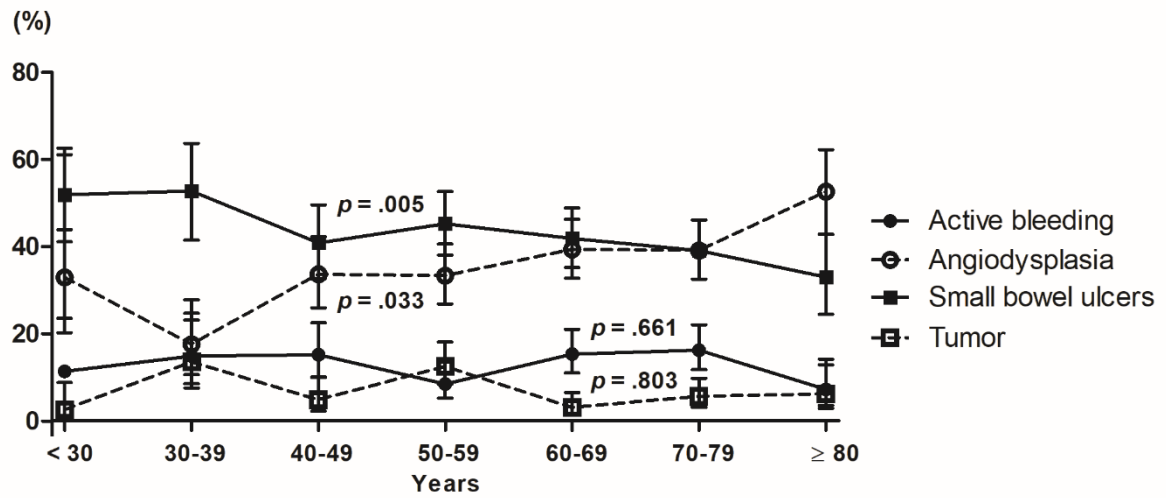


Supplementary material 1. VCE finding of enrolled patients according to age by decade

	Total (n=1,953)	< 30 yrs (n=183)	30–39 yrs (n=195)	40–49 yrs (n=288)	50–59 yrs (n=371)	60–69 yrs (n=406)	70–79 yrs (n=361)	≥ 80 yrs (n=149)
	P0/P1 lesions, n (%)	1,008 (51.6)	104 (56.8)	121(62.1)	163 (56.6)	194 (52.3)	210 (51.7)	164 (45.4)
P0 lesions, n	537	67	63	101	108	95	74	29
P1 lesions, n	471	37	57	63	86	115	90	23
P2 lesions, n (%)	945 (48.4)	79 (43.2)	74 (37.9)	125 (43.4)	177 (47.7)	196 (48.3)	197 (54.6)	97 (65.1)
Active bleeding, n	123	9	11	19	15	30	32	7
Angiodysplasia, n	345	26	13	42	59	77	77	51
Dieulafoy's lesion, n	5	1	0	3	0	0	0	1
Tumor, n	63	2	10	6	22	6	11	6
Small bowel ulcer, n	402	41	39	51	80	82	77	32
Varices, n	7	0	1	4	1	1	0	0

Supplementary material 2. Trend of individual P2 lesions in patients with potential small bowel bleeding according to age by decade



Trends of Dieulafoy's lesion and varices among P2 lesions are not shown here due to small numbers of patients.

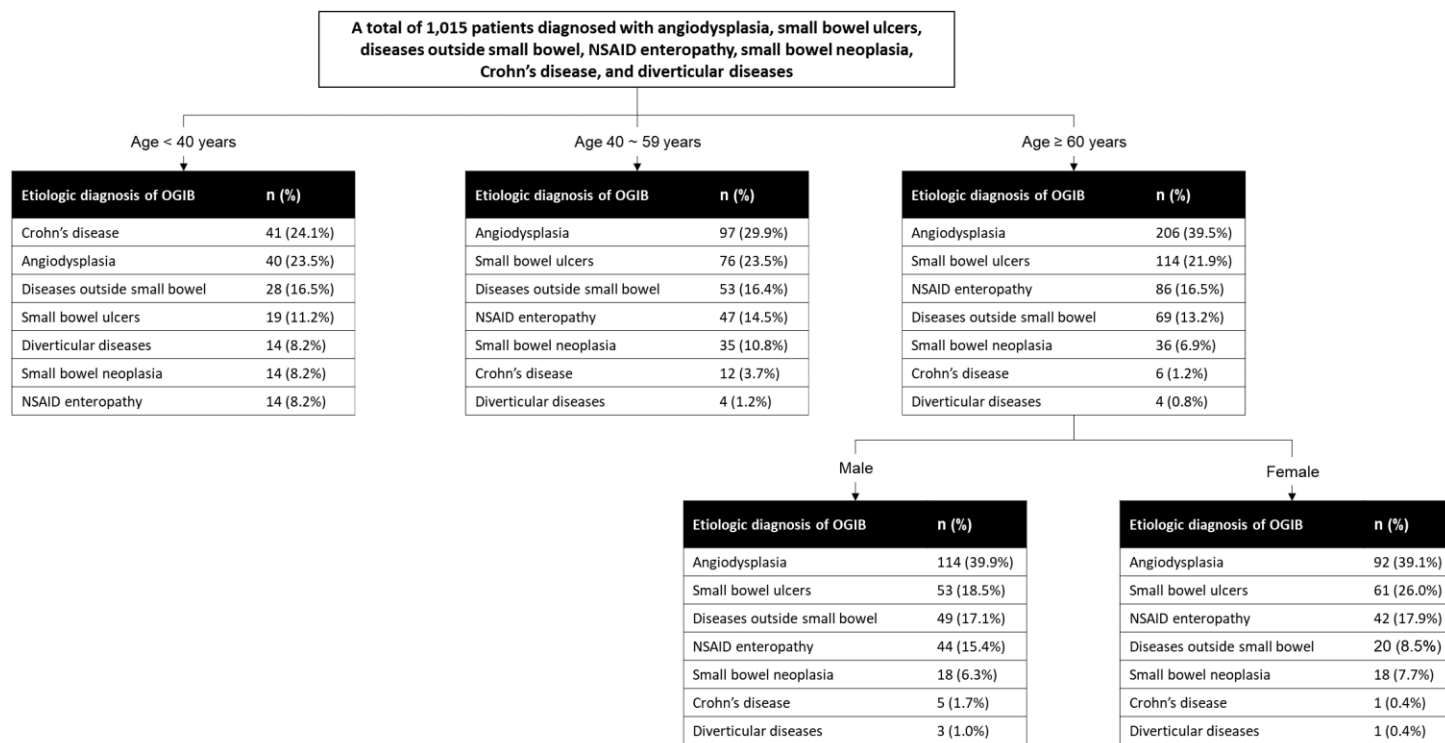
Supplementary material 3. Etiologic diagnoses of enrolled patients according to age by decade

	Age group						
	< 30 yrs	30–39 yrs	40–49 yrs	50–59 yrs	60–69 yrs	70–79 yrs	≥ 80 yrs
	(n=183)	(n=195)	(n=288)	(n=371)	(n=406)	(n=361)	(n=149)
Angiodysplasia, n (%)	26 (14.2)	14 (7.2)	39 (13.5)	58 (15.6)	80 (19.7)	75 (20.8)	51 (34.2)
Other vascular disease, n (%)	4 (2.2)	5 (2.6)	10 (3.5)	5 (1.3)	6 (1.5)	8 (2.2)	4 (2.7)
Dieulafoy's lesion, n	0	0	3	0	0	0	2
AV malformation, n	2	0	3	0	1	2	1
Hemangioma, n	0	0	0	1	0	1	0
Ischemic enteritis, n	1	0	1	1	1	4	1
Lymphangiectasia, n	0	1	0	1	0	0	0
Varices, n	0	3	2	1	1	1	0
Portal hypertensive enteropathy, n	0	0	0	0	2	0	0
Vasculitis/Henoch-Schonlein purpura, n	0	1	1	0	1	0	0
Splenic artery pseudoaneurysm, n	0	0	0	1	0	0	0
SMA aneurysm, n	1	0	0	0	0	0	0
Crohn's disease, n (%)	22 (12.0)	19 (9.7)	5 (1.7)	7 (1.9)	5 (1.2)	1 (0.3)	0 (0.0)
NSAID enteropathy, n (%)	7 (3.8)	7 (3.6)	19 (6.6)	28 (7.5)	39 (9.6)	34 (9.4)	13 (8.7)
Small bowel ulcers, n (%)	12 (6.6)	7 (3.6)	35 (12.2)	41 (11.1)	44 (10.8)	53 (14.7)	17 (11.4)
Other inflammatory disease, n (%)	9 (4.9)	21 (10.8)	11 (3.8)	33 (8.9)	31 (7.6)	20 (5.5)	2 (1.3)
Enteropathy-erosive, n	6	14	4	12	16	15	1
Enteropathy-erythematous/hemorrhagic, n	1	1	1	6	10	2	1
Eosinophilic enteritis, n	0	1	0	0	1	0	0
Infectious enteritis, n	0	1	0	2	0	0	0
Intestinal Behcet, n	0	2	2	4	2	0	0
Intestinal tuberculosis, n	1	2	2	4	1	0	0
Radiation enteritis, n	0	0	0	3	1	3	0
Anastomosis site ulcer, n	1	0	2	1	0	0	0
CMUSE, n	0	0	0	1	0	0	0
Small bowel neoplasia, n (%)	4 (2.2)	10 (5.1)	12 (4.2)	23 (6.2)	17 (4.2)	13 (3.6)	6 (4.0)
Small bowel malignant tumor, n	0	0	2	3	2	1	0
GIST, n	1	5	5	15	9	6	4
Lymphoma, n	1	0	1	2	0	3	1
Metastatic cancer, n	0	0	0	0	3	1	0
FAP, n	0	0	1	0	0	0	0
Peutz-Jegher syndrome, n	1	1	0	0	1	0	0
Small bowel benign tumor, n	1	2	1	0	1	1	0
Submucosal tumor, n	0	2	2	3	1	1	1
Diverticular disease, n (%)	11 (6.0)	3 (1.5)	0 (0.0)	4 (1.1)	2 (0.5)	1 (0.3)	1 (0.7)
Meckel's diverticulum, n	8	3	0	2	0	0	0
Unspecified diverticulum, n	3	0	0	2	2	1	1
Disease outside small bowel, n (%)	12 (6.6)	17 (8.7)	17 (5.9)	35 (9.4)	32 (7.9)	23 (6.4)	14 (9.4)
Epistaxis, n	0	0	0	1	0	0	0
Esophagus, n	0	0	2	4	2	1	0
Stomach, n	2	3	2	10	8	6	4
Duodenum (proximal to ampulla of Vater), n	4	8	3	3	5	4	2
Hepatobiliary tract, n	0	1	0	0	0	1	1
Colorectum and anus, n	6	4	11	17	17	11	7
Other disease, n (%)	1 (0.5)	1 (0.5)	1 (0.3)	3 (0.8)	6 (1.5)	2 (0.6)	2 (1.3)

Amyloidosis, n	0	0	0	0	1	0	0
Congestive enteropathy, n	0	0	0	1	1	0	0
Intussusception, n	0	0	2	0	0	2	0
Parasite infestation, n	0	0	0	0	1	1	0
Post-surgical anastomosis stricture, n	0	1	0	1	2	0	2
Foreign body, n	0	0	1	0	0	1	0
Malabsorption syndrome, n	0	0	0	0	1	0	0
Protein losing enteropathy, n	1	0	0	0	0	0	0
Obscure gastrointestinal bleeding, n (%)	75 (41.0)	91 (46.7)	139 (48.3)	134 (36.1)	144 (35.5)	131 (36.3)	39 (26.2)
P0 lesion, n	55	55	91	83	77	64	22
P1 lesion, n	20	36	48	51	67	67	17

SMA, superior mesenteric artery; NSAID, nonsteroidal anti-inflammatory drug; CMUSE, cryptogenic multifocal ulcerous stenosing enteritis; GIST, gastrointestinal stromal tumor; FAP, familial adenomatous polyposis.

Supplementary material 4. Decision tree analysis using CHAID algorithm



Supplementary material 5. Multivariate analysis of the risk of positive VCE findings (P2 lesions)

		N of positive finding (%)	Univariate analysis		Multivariate analysis	
			OR (95% CI)	<i>P</i>	OR* (95% CI)	<i>P</i>
Age group	+ 10 years		1.15 (1.09-1.21)	<.001	1.14 (1.08-1.20)	<.001
	Young adult (< 40 yrs)	153 (40.5)	1	<.001	1	<.001
	Middle-aged (40-59 yrs)	302 (45.8)	1.24 (0.96-1.60)		1.18 (0.91-1.53)	
	Elderly (≥60 yrs)	490 (53.5)	1.68 (1.32-2.15)		1.60 (1.25-2.05)	
Gender	Female	368 (47.5)	1	.546	1	.561
	Male	577 (48.9)	1.06 (0.88-1.27)		1.06 (0.88-1.28)	
Clinical presentation	Occult bleeding	159 (35.2)	1	<.001	1	<.001
	Overt bleeding	786 (52.4)	2.03 (1.63-2.52)		1.93 (1.55-2.41)	
When VCE was performed	Mar 2003–Aug 2008	470 (50.9)	1	.038	1	.101
	Sep 2008–Dec 2014	475 (46.2)	0.83 (0.69-0.99)		0.85 (0.71-1.02)	
Bowel preparation status	Excellent, good	598 (48.9)	1	.560	1	.524
	Fair, poor	347 (47.5)	0.95 (0.79-1.14)		0.94 (0.78-1.14)	

VCE, video capsule endoscopy.

*Adjusted for age group, gender, clinical presentation, when VCE was performed, and bowel preparation status.