Table 1. Source of acute lower gastrointestinal bowel bleeding: Data between January 2009 and December 2012

Disease	Number	(%)	Male/Female
Diverticular hemorrhage	72	58.5	51/21
Ileum hemorrhage	8	6.5	5/3
Ischemic colitis	7	5.7	4/3
Inflammatory bowel disease	6	4.9	5/1
Hemorrhoids	5	4.1	3/2
Infection colitis	4	3.3	2/2
Anastomotic hemorrhage	4	3.3	2/2
Solitary rectal ulcer	3	2.4	2/3
Carcinoma	3	2.4	2/2
Sigma volvulus	3	2.4	2/0
Unknown	4	3.3	2/2
Others	4	3.3	2/2
Total	123		80/43

Table 2. Background factors of the cases and controls.

Factors	Cases	Controls	*P*-value
Number	72	149	
Male/Female	51/21	91/58	
Average age (years)	70 （33 - 92)	70 (37 - 92)	
Location of diverticula (L/R)	24/48	77/72	
Body mass index (kg/m2)	21.3	22.8	n.s.
Smoking	10	18	n.s.
Alcohol	14	40	n.s.

L, left hemicolon; R, right hemicolon; n.s., not significant

Table 3. Risk factors for diverticular hemorrhage by univariate analysis (case=72 controls=149)

Factors	Cases	Controls	OR	95% CI	*P*-value
Past History					
Diabetes mellitus	14	18	1.398	0.556 - 3.389	0.5177
Hypertension	36	42	2.399	1.287 - 4.498	0.0041
Hyperlipidemia	6	10	1.262	0.361 - 4.026	0.7825
Ischemic heart disease	17	14	2.964	1.277 - 6.993	0.0067
Cerebrovascular disease	14	4	2.325	0.682 - 3.410	0.0006
Chronic renal disease	6	7	1.839	0.489 - 6.672	0.3606
Osteoporosis	1	2	2.092	0.149 - 29.412	0.5978
Hyperuricemia	8	1	18.266	2.368 - 822.732	0.0006
Medication					
NSAIDs	19	3	17.194	4.786 - 94.425	<0.0001
Antithrombotic agents	29	20	4.316	2.120 - 8.964	<0.0001

CI, confidence interval; OR, odds ratio.

NSAIDs, non-steroidal anti-inflammatory drugs.

Table 4. Risk factors for diverticular hemorrhage by multivariate analysis

Factors	OR	95% CI	*P*-value
Hypertension	1.56	0.760 - 3.190	0.226
Ischemic heart disease	1.64	0.496 - 5.430	0.418
Cerebrovascular disease	8.66	2.330 - 32.100	0.00126
Hyperuricemia	15.5	1.740 - 138.000	0.014
NSAIDs	14.70	3.890 - 55.800	<0.0001
Antithrombotic agents	1.32	0.463 - 3.750	0.604

CI, confidence interval; OR, odds ratio.

NSAIDs, non-steroidal anti-inflammatory drugs.

Table5. Risk factors for diverticular hemorrhage in the definite group.

A. Univariate analysis in the cases and controls of the definite group

Factors	Cases	Controls	OR	95% CI	*P*-value
Past History	26	54			
Diabetes mellitus	5	7	1.599	0.454-5.623	0.4647
Hypertension	15	13	4.301	1.587-11.659	0.0041
Hyperlipidemia	3	4	1.631	0.337-7.887	0.5433
Ischemic heart disease	8	4	5.556	1.491-20.703	0.0106
Cerebrovascular disease	5	2	6.191	1.112-34.444	0.0373
Chronic renal disease	1	2	1.04	0.09-12.022	0.9748
Osteoporosis	1	0	-	-	-
Hyperuricemia	5	2	6.191	1.113-34.444	0.0374
Medication					
NSAIDs	7	1	19.526	2.252-169.277	0.0070
Antithrombotic agents	13	8	5.75	1.963-16.840	0.0014

CI, confidence interval; OR, odds ratio.

NSAIDs, non-steroidal anti-inflammatory drugs.

B.Multivariate analysis in the cases and controls in the definite group

Factors	Cases	Controls	OR	95% CI	*P*-value
Hypertension	15	13	3.785	1.053-13.6	0.0414
Ischemic heart disease	8	4	8.28	0.502-136.65	0.1395
Cerebrovascular disease	5	2	9.964	0.677-146.654	0.0938
Hyperuricemia	5	2	5.594	0.612-51.101	0.1271
NSAIDs	7	1	16.766	1.529-183.747	0.0210
Antithrombotic agents	13	8	1.18	0.1-13.936	0.8953

CI, confidence interval; OR, odds ratio.

NSAIDs, non-steroidal anti-inflammatory drugs.

Table.6 Risk factors for diverticular hemorrhage in the presumptive group.

A. Univariate analysis in the cases and controls in the presumptive group

Factors	Cases	Controls	OR	95% CI	*P*-value
Past History	46	106			
Diabetes mellitus	9	14	1.599	0.637-4.012	0.3177
Hypertension	21	28	2.34	1.135-4.823	0.0212
Hyperlipidemia	3	12	0.547	0.146-2.037	0.3681
Ischemic heart disease	9	12	1.906	0.741-4.899	0.1807
Cerebrovascular disease	9	0	-	-	-
Chronic renal disease	5	2	6.341	1.183-34	0.0311
Osteoporosis	0	0	-	-	-
Hyperuricemia	3	2	3.628	0.585-22.483	0.1661
Medication					
NSAIDs	12	2	18.352	3.910-86.136	0.0002
Antithrombotic agents	16	12	4.178	1.779-9.813	0.0011

CI, confidence interval; OR, odds ratio.

NSAIDs, non-steroidal anti-inflammatory drugs.

B. Multivariate analysis in the cases and controls in the presumptive group

Factors	Cases	Controls	OR	95% CI	*P*-value
Hypertension	21	28	2.711	1.133-6.489	0.0251
Ischemic heart disease	9	12	1.317	0.423-4.091	0.6341
Chronic renal disease	5	2	1.625	0.206-12.802	0.6445
Hyperuricemia	3	2	0.92	0.098-8.602	0.9419
NSAIDs	12	2	19.665	3.797-101.843	0.0004
Antithrombotic agents	16	12	4.828	1.603-14.536	0.0051

CI, confidence interval; OR, odds ratio.

NSAIDs, non-steroidal anti-inflammatory drugs.