Supplementary Material

Management of delayed bleeding after endoscopic mucosal resection of large colorectal polyps: a retrospective multi-center cohort study

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Supplementary Table 1 Logistic regression analysis to identify factors associated with DB.

Supplementary Table 2 Data per center, including number of polyps, DBs and re-colonoscopies rate.

Supplementary Table 3 Oakland risk score in patients with delayed bleeding, including performed re-colonoscopies and stigmata of recent hemorrhage.

Supplementary Table 1 Logistic regression analysis to identify factors associated with DB.

	Univariable analysis		Best fitting multiple logistic regression model	
	OR (95% CI)	*P* value	Adjusted OR (95% CI)	*P* value
Patient characteristics				
Mean age	1.02 (0.98 - 1.07)	0.29		
Gender				
Female	1		Excluded from final model	
Male	1.91 (0.94-3.90)	0.074		
ASA score				
1 or 2	1		Excluded from final model	
3 or 4	2.0 (0.98-4.06)	0.056		
Comorbidity conditions				
None	1			
Cardiovascular	2.51 (1.26-5.02)	0.009		
Pulmonary		0.26		

Renal	1.52 (0.74-3.14) 2.13 (0.84-5.40)	0.11	Excluded from final model	
Continued antithrombotic				
None	1		Excluded from final model	
Yes*	2.12 (1.04-4.31)	0.039		
Use of antithrombotic drugs within seven days after the procedure				
None	1		1	
Platelet aggregation inhibitors	2.91 (1.34-6.31)	0.007	2.86 (1.3-6.26)	0.009
Anticoagulation	4.75 (2.19-10.3)	0.00	4.72 (2.12-10.53)	0.00
Polyp characteristics				
Increasing lesion size, per cm, mean (SD)	1.17 (0.99-1.37)	0.062	1.19 (1.01-1.41)	0.040
Lesion location				
Distal location†	1		1	
Proximal location‡	1.69 (0.9-3.17)	0.11	1.9 (0.98-3.66)	0.057
Procedural characteristics				
Status of EMR				
First EMR	1		Excluded from final model	
EMR for residual/recurrence	1.96 (0.72-5.34)	0.19		
Submucosal lifting				
Complete	1			
Suboptimal	1.09 (0.49-2.44)	0.83		
Submucosal adrenaline injection				
No	1			
Yes	1.39 (0.51-3.78)	0.52		
Resection				
Piecemeal	1			
En bloc	0.54 (0.13-2.31)	0.40		
Success of resection				
Complete	1			
Incomplete	0.95 (0.22-4.16)	0.95		
Intraprocedural bleeding				
No	1			
Yes		0.68		

Prophylactic clip closure	0.86 (0.41-	
Yes	1.79)	
No		0.34
Concurrent polypectomy of	1	
small	1.68 (0.58-	
(< 20 mm) or large	4.84)	
pedunculated polyps		
(≥ 20 mm)		0.40
No		
Yes	1	
	0.75 (0.39-	
	1.45)	
Histology		
Benign polyp	1	
Carcinoma	0.94 (0.22-	0.94
	4.11)	

[*] Platelet aggregation inhibitors or anticoagulation
[†] Including rectum, sigmoid, descending colon, splenic flexure, transverse colon and hepatic flexure
[‡] Including cecum and ascending colon

Supplementary Table 2 Data per center, including number of polyps, DBs and re-colonoscopies rate.

Center	LNPCPs n= 542	DB* n= 42	Re-colonoscopy n=30 (%)
Academic center 1	284 (52.4)	19	13 (68.4)*
Non-academic center 1	31 (5.7)	3	2 (66.7)
Non-academic center 2	42 (7.7)	3	3 (100)
Non-academic center 3	17 (3.1)	0	-
Non-academic center 4	64 (11.8)	4	4 (100)
Non-academic center 5	56 (10.3)	10	7 (70.0)
Non-academic center 6	23 (4.2)	2	1 (50.0)
Non-academic center 7	25 (4.6)	1	0 (0.0)
Total in non-academic centers	258	23	17 (73.9)

DB, delayed bleeding.
* In two patients DB was managed in the referring non-academic center

Supplementary Table 3 Oakland risk score in patients with delayed bleeding, including performed re-colonoscopies and stigmata of recent hemorrhage.

Oakland risk score	Patients (n) *n=42*	Safe discharge[*] (n, %)	Colonoscopy performed (n, %)	SRH[†] (n)
0-15	0	-	-	-
16-20	6	3 (50.0)	3 (50.0)	3
21-23	11	7 (63.6)	7 (63.6)	5
24-26	10	3 (30.0)	7 (70.0)	5
27-29	9	0 (0.0)	8 (88.9)	7
≥ 30	6	1 (16.7)	5 (83.3)	4

[*] Safe discharge was defined as absence of all of the following after presentation: any hemostatic intervention, red blood transfusion, recurrent bleeding within 28 days.
[†] Stigmata of recent hemorrhage, based on endoscopic visualization of active bleeding, nonbleeding visible vessel or adherent clot.