❖Figure 2. The weekly responder rates of "Patient-reported global assessment of relief of IBS symptoms".

Factors related to success rates of preoperative colonoscopy after stent insertion in malignant colorectal obstruction

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BACKGROUND & AIMS

- ❖ In patients with obstructive colorectal cancer, evaluation of colon proximal to the obstruction after the insertion of self-expendable metal stents (SEMS) is important to find the proximal lesions to the site of malignant obstruction.
- ❖ Preoperative complete colonoscopy after the insertion of SEMS occasionally fails due to technical difficulties.
- ❖ We aimed to investigate the factors related to success rates of preoperative colonoscopy after SEMS insertion in malignant colorectal obstruction.

METERIALS & METHODS

- ❖ Between February 2009 and April 2015, data of 137 consecutive patients who underwent SEMS insertion for malignant colorectal obstruction were analyzed retrospectively.
- ❖ Preoperative colonoscopy was performed in order to evaluate colon proximal to the obstruction in patients with resectable colorectal cancer.
- ❖ Parameters such as the type and length of stents, the location of obstruction, TNM stage, previous history of abdominal surgery, and diameter of expanded stents were evaluated.
- ❖ Colonoscopy-related side effects were recorded.

RESULTS

Table 1. Baseline characteristics of patients

Baseline characteristics of patients	
Number, n	137
Age, mean ± SD (range), years	64.3 ± 12.4
Sex, n(%) male female	 87 (63.5) 50 (36.5)
BMI (mean ± SD)	22.8 ± 3.6
Past history of abdominal surgery, n(%)	26 (19.0)
Location of obstruction, n(%) T-colon SF D-colon S-D junction S-colon R-S junction Rectum	 2 (1.5) 2 (1.5) 9 (6.6) 12 (8.8) 72 (52.6) 21 (15.3) 19 (13.9)
Length of obstruction, mean ± SD (range), cm	7.0 ± 1.9
SEMS type, n(%) Covered Uncovered	 23 (16.8) 114 (83.2)
SEMS size, mean ± SD (range) diameter (mm) length (cm)	 23.5 ± 1.0 8.6 ± 2.0
Side effects after SEMS insertion, n(%) perforation bleeding migration	5 (3.6) 1 (0.7) 1 (0.7) 3 (2.2)
Stage of colorectal cancer (TNM), n(%) I / II / III / IV	 1 (0.7) / 47 (34.3) / 68 (49.6) / 21 (15.3)
synchronous lesions , n(%) polyps cancer	 71 (58.2) 4 (3.3)

Table 2. Univariate analysis of factors related to success rates of preoperative colonoscopy after SEMS insertion

	Success group (n = , %)	Failure group (n = , %)	P value
Age, mean ± SD (range), years	64.2 ± 12.5	65.0 ± 12.5	0.810
Sex, n(%) male female	 77 (63.1) 45 (36.9)	 10 (66.7) 5 (33.3)	0.787
BMI (mean ± SD)	23.0 ± 3.6	21.3 ± 3.4	0.085
Past history of abdominal surgery, n(%)	23 (18.9)	3 (20.0)	0.915
Location of obstruction, n(%) T-colon SF D-colon S-D junction S-colon R-S junction Rectum	 2 (1.6) 1 (0.8) 7 (5.7) 11 (9.0) 64 (52.5) 19 (15.6) 18 (14.8)	 0 (0) 1 (6.7) 2 (13.3) 1 (6.7) 8 (53.3) 2 (13.3) 1 (6.7)	0.505
Length of obstruction, mean ± SD (range), cm	7.0 ± 1.8	6.9 ± 2.0	0.876
SEMS type, n(%) Covered Uncovered	 15 (12.3) 107 (87.7)	 8 (53.3) 7 (46.7)	0.000
SEMS size, mean ± SD (range) length (cm)	 8.5 ± 1.9	 9.6 ± 2.5	 0.04

Table 3. Multivariate logistic regression analyses of factors related to success rates of preoperative colonoscopy after SEMS insertion

	Adjusted OR [95 %CI]	P value
SEMS type (Covered / Uncovered)	0.13 [0.04 – 0.42]	0.001
SEMS length	0.78 [0.59 – 1.03]	0.080

CONCLUSIONS

A preoperative complete colonoscopy after SEMS placement was feasible and safe in most patients with malignant colorectal obstruction. The type of stents and the length of stent can influence its success rate.

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