Background: Patients with colorectal cancer (CRC) may somehow receive insufficient preoperative colonoscopy, e.g. as a result of intestinal obstruction or inadequate intestinal preparation. However, updated guidelines do not recommend the timing of surveillance colonoscopy to be performed for those patients. The purpose of this study was to identify risk factors for CRC complicated with synchronous advanced adenomas.

Methods: We conducted a retrospective analysis of 4659 patients with CRC from the year of 2015 to 2018. Advanced adenoma was defined as adenoma >10 mm, villious to tubulovillous component or high-grade dysplasia. The patients with full clinical and pathological information were divided into no adenoma group, non-advanced adenoma group, and advanced adenoma group. Univariate and multivariate logistic regression analysis were used to estimate odds ratio (OR) and 95% confidence interval (CI) for all potential risk factors.

Results: Among those eligible patients, 675 cases (14.5%) were found to be advanced adenomas. Intense surveillance for CRC patients complicated with synchronous advanced adenomas was more likely to be over 50 years old (OR < 10 mm, villous to tubulovillous component or high-grade dysplasia. The patients with full clinical and pathological information were divided into no adenoma group, non-advanced adenoma group, and advanced adenoma group. Univariate and multivariate logistic regression analysis were used to estimate odds ratio (OR) and 95% confidence interval (CI) for all potential risk factors.

Conclusions: The study illustrated several risk factors of CRC patients with synchronous advanced adenomas. Intense surveillance for CRC patients complicated with high-risk polyps is of great significance to prevent synchronous CRC.

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