

# Surveillance Colonoscopy After a Resection of Colorectal Cancer

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Postoperative surveillance colonoscopy is regarded as an effective tool for the detection and the diagnoses of metachronous cancer and adenomas. Detection and removal of adenomatous polyps though postoperative colonoscopy may reduce the risk of recurrence of colon cancer and advanced adenomas [1]. National Comprehensive Cancer Network guidelines recommend postoperative surveillance colonoscopy within the first year after a resection of colorectal cancer [2]. Postpolypectomy surveillance guidelines published by the US Multi-society Task Force on Colorectal Cancer and based on the number of polyps, the polyp size, and the pathology were presented in 2006. In 2012, those guidelines added surveillance recommendations for serrated lesions to the previous guidelines. Guidelines are to delineate predictors of advanced pathology, both cancer and advanced adenomas. According to the guidelines, patients can be more definitely stratified at their baseline colonoscopies into those at lower risk and those at increased risk for advanced neoplasia [3]. Guidelines for postoperative surveillance colonoscopy recommend that the presence of adenomas and sessile serrated polyps be considered to determine the follow-up interval [3]. Also recommended is that the surveillance interval be based on the risk of polyps found at index colonoscopy [3]. Ratuapli et al. [4] said that knowledge of the pathology of the actual polyp does not change the postpolypectomy surveillance recommendations. Interval cancers within one year after surgery may also represent lesions that were missed on the index colonoscopy. The experienced endoscopist will miss about

15% of neoplastic polyps smaller than 10 mm in size, but will rarely miss larger polyps [5].

Another study showed an overall miss rate for adenomas of 24%; only 6% of adenomas with sizes larger than 1 cm were overlooked during the first examination [6]. Brenner et al. [7] demonstrated that the protective effect of colonoscopy against colorectal cancer was not uniform throughout the colon and that the right colon had a lower rate of protection. Factors that may contribute to lower adenoma detection, particularly in the right colon, include the prevalence of flat and depressed lesions, as well as serrated adenomas, in the more proximal segments, which are more difficult to visualize [7]. A higher proportion of polyps were adenomatous in the right and the proximal colon compared with the distal colon [8]. The adenoma detection rates for the proximal colon (22.9%) and the right colon (17.1%) were significantly higher than the adenoma detection rate for the left colon (13.5%) (both  $P < 0.001$ ) [8]. A considerable variation in adenoma detection exists among endoscopists. Colonoscopies performed by endoscopists with higher adenoma detection rates are associated with lower rates of interval cancer [8].

In this study, the authors said that in the 116 enrolled patients, the incidence of total polyps during postoperative surveillance colonoscopy was 53.4% and that the incidence of neoplastic polyps was 25.9%. They also said that the miss rate of total polyps was 37.4% and the miss rate of neoplastic polyps was 24.2% during postoperative colonoscopy. The missed neoplastic polyps were located in the right colon and the proximal part from the primary tumor at a higher percentage. When more neoplastic polyps were detected during preoperative colonoscopy, more neoplastic polyps were missed during postoperative colonoscopy [9].

Repeat surveillance colonoscopy earlier than recommended may increase healthcare expenditures, and delayed surveillance colonoscopy may increase the number of patients with an interval cancer [4]. Baseline postoperative surveillance colonoscopy with excellent patient preparation and adequate withdrawal time could reduce the miss rate for colorectal cancer and adenomas. Postoperative surveillance colonoscopy is very important because it can have a great effect on reducing the incidence of colorectal cancer in patients with adenomatous polyps. Especially, the right side of

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the colon should be thoroughly examined at the time of postoperative surveillance colonoscopy.

### CONFLICT OF INTEREST

No potential conflict of interest relevant to this article was reported.

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