Comparison of Insertion Time and Quality of Bowel Preparation before and after Colorectal Resection

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Background and Objectives: Colonoscopy can detect both early intraluminal recurrence and metachronous neoplasia after colorectal resection. Since colon length and location change after colorectal resection, factors affecting insertion time and quality of bowel preparation during colonoscopy might also be altered. The goal of this study was to examine whether colonoscopy insertion time and quality of bowel preparation differs before and after colorectal resection.

Methods: Consecutive patients who underwent colonoscopies twice before and after colorectal resection for colorectal cancer between January 2004 and November 2009 were included. We retrospectively reviewed the medical records and colonoscopic findings and compared insertion time and quality of bowel preparation before and after colorectal resection.

Results: A total of 621 patients underwent colonoscopies twice before and after colorectal resection during the study period. Of these, 426 patients who underwent complete colonoscopy were evaluated. The crude completion rate before colectomy was 76.2% and the main cause of failure was obstruction of colon due to cancer (89.5%). After excluding failure to disease and poor bowel preparation, the completion rate was 98.8% and 100% before and after colectomy, respectively. The mean insertion time was 12.2±9.3 minutes and 6.5±5.2 minutes before and after colectomy, respectively (p<0.001) and the quality of bowel preparation got worse significantly (p=0.015). Factors associated with prolonged insertion time were right-side resection, female gender and lower case-volume of endoscopist.

Conclusion: Our study showed that colonoscopic insertion time was reduced and quality of bowel preparation got worse significantly after colorectal resection. These findings have implications for the practice and teaching of colonoscopy after colorectal resection.

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