Intermediate Length versus Long Length Colonoscope for Colonoscopy Training: Midterm Evaluation

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Background: Although intermediate length colonoscopy (CFS Q260 I) tends to be easy to handle because of shorter length than long length colonoscopy (CFS Q260L), there was no difference in terms of cecal intubation rates, and insertion time between CFS Q260I and CFS Q260L in expert endoscopists. However, the same data in trainee is lacking. This study was prospectively conducted to compare cecal intubation rate and insertion time in ten trainee.

Methods: Ten first-year GI fellows fell into either CFS Q260I (n=5) or CFS Q260L (n=5) in Asan Medical Center randomly, and underwent diagnostic colonoscopy from April, 2010 to September, 2010 with either CFS Q260I or CFS Q260L only. Demographic data of patients, grades of bowel preparation, cecal intubation rate and withdrawal time were compared in both groups.

Results: A total 354 patients were enrolled. The baseline characteristics by sex, age, and body mass index showed comparable outcomes between two groups. Overall cecal intubation rate was 219 (61.9%) (59.5% in CFS Q260I vs. 64.9% in CFS Q260L, p=0.322). The overall mean cecal intubation time was 17.6±8.1 min (13.9±4.7 min in CFS Q260I vs. 12.5±5.1 in CFS Q260L, p=0.038). CFS Q260I group showed significantly shorter withdrawal time (13.4±6.2 vs. 20.0±9.2, p<0.001), higher midazolam requirement (3.5±0.9 vs. 3.0±0.7, p=0.001), higher pain score (VAS scale/3.9±2.6 vs. 2.9±2.1, p=0.005), more change of position (1.6±1.2 vs. 1.0±0.6, p<0.001), and more abdominal compression (0.7±1.1 vs. 0.2±0.4, p<0.001) than CFS Q260L.

Conclusion: CFS Q260L showed significantly shorter cecal intubation time, longer withdrawal time, less pain score, and less sedative requirement than CFS Q260I in the trainee. Thus, CFS Q260L could be better for colonoscopy training.