The Polyp Manager: a new tool to report polyps during colonoscopy in a complete and time-efficient way. A pilot study

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Introduction: According to the CO-RADS report of the Quality Assurance Task Group of the American National Colorectal Cancer Roundtable, standardized documentation of colon polyps should include the following 7 items: location, size, morphology, method of removal, completeness of removal and retrieval and if the specimen is provided to the pathologist. In The Netherlands, a description of the mucosal aspect and packaging of each individual polyp in separate containers are considered additional quality items. Since a report is usually made after the colonoscopy it can be difficult to recall all relevant data, especially when there are many polyps to be described. Previous studies have shown that reporting of polyps is often incomplete. The Polyp Manager (PM, Olympus, Zoeterwoude, The Netherlands) is a new touchscreen operated software application that allows the endoscopist to describe polyps real-time during the colonoscopy. PM generates a uniform and complete list of all polyp characteristics that serves as input for both the colonoscopy report and pathology request. In this pilot study PM was not yet connected to a digital reporting system. We compared the PM with conventional reporting (CR) with respect to completeness of polyp documentation and potential time benefit.

Methods: In two Dutch hospitals, all patients planned for a regular colonoscopy were included and randomly assigned to either PM or CR. Excluded were national screening colonoscopies, incomplete colonoscopies, patients with no polyps found and with previous colon surgery. Endoscopists measured the total duration of the colonoscopy plus the time needed to report polyps and to create a pathology request. The sum of the latter two in both groups was considered as the potential time benefit once PM would be integrated in the reporting system, provided that using PM would not prolong the colonoscopy. To evaluate completeness of polyp description, the PM-group was compared with an equally sized historical CR-group (CRH) including all patients that had colonoscopy in the month before starting the prospective study. Each of the eight polyp descriptors mentioned above (Dutch criteria) were scored for each polyp.

Results: 144 colonoscopies (78 PM, 66 CR) were included prospectively with patients comparable for age, sex and number of polyps (both PM and CR 2.0 ± 2.0, p > 0.05). Duration of colonoscopy was equal in PM and CR (25:42 ± 16:20 vs 24:00 ± 16:40 minutes, p > 0.05) suggesting that operating PM does not extend the procedure. Time to report polyps and provide a pathology request was 2:23 ± 3:03 minutes in the entire group (PM plus CR). Historical CR-reports (78 CRH) were comparable for age, sex and number of polyps with PM (CRH 2.0 ± 2.0, p > 0.05). The incomplete documentation of the following items did significantly improve by using the PM: location (96% vs 82%, p = 0.01), size (95% vs 89%, p = 0.03), aspect (71% vs 36%, p < 0.001) and completeness of removal (61% vs 37%, p < 0.001). (‡ median ± interquartile range)

Conclusion: This pilot study suggests that PM improves the completeness of reporting polyp characteristics and may reduce the total procedure time once PM is a fully integrated part of the reporting system. Conformational studies in such a setting are expected shortly.