

Techniques to facilitate endoscopic identification of neoplasia

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Identification of neoplasia during colonoscopy depends on many factors. Adequate training and skills of endoscopists as well as sufficient time reserved for each procedure are crucial. Detection of small lesions may be impossible with suboptimal bowel preparation. Providing perfect endoscopists are available and patients are optimally prepared, additional techniques such as high resolution and magnifying endoscopes in conjunction with chromoendoscopy may further increase the yield of colonoscopy.

Could these additional techniques be practically used in a mass screening colonoscopic programmes? This may be a matter of debate but at the moment the number of trained colonoscopists is inadequate to meet all needs. The quality of some of these colonoscopists trained for the purpose of screening may not be optimal. Analysis of the database of Polish colorectal cancer screening program allowed us to detect some individuals who clearly do not fulfill quality standards and require additional training. For example one of the “poor quality” endoscopists had the following “achievements” as compared to “good quality” endoscopist from the same center: completion to caecum (88% vs. 98%), diagnosis of normal colon (72% vs. 25%), hyperplastic polyps (8% vs. 25%), adenoma detection rate (9% vs. 37%), patient’s satisfaction rate (3.94 vs. 4.18).

Special colonoscopic techniques mentioned above seem too sophisticated for mass colorectal cancer screening at the present stage. For the purpose of screening these techniques should be built into the standard colonoscopes. Even if available, they do not predict the histology in 100% and in fact any lesion must be first spotted with the “naked eye”. It is not clear whether these techniques may allow us to detect more lesions during mass screening.

These techniques however, may be useful in high risk groups. We studied 23 people from HNPCC families using CF Q160 ZI Olympus magnifying colonoscope in order to assess whether zoom colonoscope can

detect more lesions than the conventional one. Area from the caecum to hepatic flexure was examined twice (without and with zoom). Zoom colonoscopy has doubled the time of the examination of studied area (6 minutes without zoom, 12 minutes with zoom). Altogether, standard colonoscopy detected 32 lesions in the caecum-hepatic flexure area including 17 neoplastic lesions. Zoom examination has allowed detecting 10 additional small lesions including 2 adenomas. Only one 10 mm cancer was detected but it was already noticed using standard viewing scope.

In conclusion, at present mass screening colonoscopy requires mainly intensive training of existing and new colonoscopists. Additional techniques are exciting and may be used for high risk groups but seem to be too sophisticated at present stage for colonoscopic colorectal cancer screening.