Adenoma detection rate: Is it all about withdrawal time?

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Adenoma detection rate (ADR) has become perhaps the most widely used surrogate to measure the quality of colonoscopy and it is recommended that individual colonoscopists and group practices measure ADR as part of continuous quality improvement programs. Indeed, ADR has been shown to be an independent predictor of the risk of interval colorectal cancer after screening colonoscopy. While tandem colonoscopy studies indicate that essentially all endoscopists miss some adenomas, there is also evidence of wide variation among endoscopists in their success in identifying adenomatous polyps. Variation among endoscopists can be due to endoscopist-related factors or patient-related factors. The quality of the bowel preparation and the anatomical variation are the two most important factors related to patients. Withdrawal time, which is considered to correlate with the time inspecting mucosa for neoplasia, has been directly correlated with ADR. Some have suggested the benchmark of 6 to 10 minutes for withdrawal, while others suggest the rates of detection of neoplasia may increase further if the period of withdrawal is increased further. Whether longer withdrawal time reflects better mucosal inspection or better outcome is unknown. Longer withdrawal time can be simply an epiphenomenon and not a sufficient benchmark to optimize ADR. Other endoscopist related factors include: variation in technical skills, adequate air insufflation, washing and suctioning of debris and fluid, attention to flexures and folds, repetitive segment viewing and torqueing maneuvers to flatten and enhance visualization between haustral folds. Physical and mental factors of endoscopists have also been demonstrated as potential influences of ADR. Visual scanning has been shown to be more efficient with two observers compared to one. Finally, our group has also demonstrated that video recording of colonoscopy may increase the detection of some polyps (hyperplastic, right sided, or small polyps) and those with low baseline ADR may be more likely to improve.

Biography
Mohammad Madhoun, MD, MS, is an Assistant Professor in the Section of Digestive Diseases and Nutrition at the University of Oklahoma Health Sciences Center. His areas of clinical and research interest are colorectal cancer screening, quality colonoscopy and hepatocellular carcinoma. He is an active member of the American Gastroenterological Association (AGA), American College of Gastroenterology (ACG), and American Society of Gastrointestinal endoscopy (ASGE). Dr. Madhoun is a graduate of Jordan University of Sciences and Technology, Jordan. He received his medical training, including a fellowship in gastroenterology, and Master’s Degree in Clinical and Translational Sciences, at the University of Oklahoma Health Sciences Center.