

**Raphael KL, Stewart M, Sejpal DV, et al. Adjunctive Yield of Wide-Area Transepithelial Sampling for Dysplasia Detection After Advanced Imaging and Random Biopsies in Barrett's Esophagus. Clin Transl Gastroenterol 2019;10:e00107.**

**INTRODUCTION:** Little is known about the additive yield of wide-area transepithelial sampling with computer-assisted three-dimensional analysis (WATS-3D) after a thorough examination with advanced imaging. The aim was to evaluate the adjunctive yield of WATS-3D after advanced imaging.

**METHODS:** This is an observational cohort study from January 2017 to December 2018 for consecutive patients who underwent an examination that consists of high-definition white light endoscopy (HDWLE), narrow-band imaging (NBI), volumetric laser endomicroscopy (VLE), and Seattle protocol (SP) biopsies (collectively termed HDWLE-NBI-VLE-SP examination). Raised lesions were removed by endoscopic resection. Areas suspicious for dysplasia on NBI and VLE were biopsied. This was followed by random biopsies and WATS-3D brush biopsies.

**RESULTS:** One hundred thirty-eight cases were included in this study. Thirty-five cases (25% of the total) were identified as some degree of dysplasia on the HDWLE-NBI-VLE-SP examination. Adjunctive use of WATS-3D yielded an additional 12 new cases of dysplasia (9 with crypt dysplasia and 3 with low-grade dysplasia [LGD]), for added yield of 34.3% (=12/35, 95% confidence interval 14.6%-62.2%). When restricting the analysis to LGD and higher, 21 dysplastic cases (15% of the total cases) were identified by HDWLE-NBI-VLE-SP, while WATS-3D found 4 additional new cases (3 with LGD and 1 with high-grade dysplasia) for an added yield of 19% (=4/21, 95% confidence interval 0.6%-45.7%).

**DISCUSSION:** The addition of WATS-3D to an already thorough examination with HDWLE-NBI-VLE-SP may increase the yield of dysplasia detection.