OC-006

IN VIVO DIAGNOSIS OF DIMINUTIVE COLONIC POLYPS: DOES FICE OR INDIGO CARMINE CHROMOENDOSCOPY IMPROVE THE ACCURACY?

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Introduction The current paradigm for the management of colonic polyps is to remove all lesions and send for histopathological evaluation, which dictates the surveillance interval. However, this is expensive and can result in a delay in arranging the surveillance interval for the patient. Studies using vital stains with zoom endoscopes have suggested that in vivo histology prediction is possible but has been perceived as too messy and impractical for every day use. This study aims to evaluate the accuracy of FICE and indigo carmine dye spray in the prediction of in vivo histology for diminutive polyps (<10 mm).

Methods Procedures were performed using fujinon colonoscopes and EPX 4400 processor. Polyps <10 mm were assessed using white light (WLI) followed by FICE, followed by indigo carmine spray, with the predicted diagnosis recorded with each modality of imaging. Finally, the polyps were removed and sent for histological analysis, with the pathologist blinded to the diagnosis made by the endoscopist. The predicted diagnosis for WLI, FICE and IC were compared to the true histology to calculate the accuracy, sensitivity and specificity of in vivo assessment. Mcnemear's test was used for the statistical comparison of modalities of imaging.

Results A total of 232 polyps <10 mm in size were examined, consisting of 2 polyp cancers, 153 adenomas and 77 hyperplastic polyps. FICE and IC significantly improved the accuracy of the in vivo diagnosis of polyps as compared to WLI endoscopy (see table 1). In vivo prediction of polyp histology allowed us to set the correct surveillance interval in 83% of cases using WLI alone and in 97% of cases using either FICE or IC based on BSG guidelines.

Table 1. OC-006 In-vivo diagnosis of neoplasia by endoscopic modality

	WLI	FICE	IC
Sensitivity (95% C.I.)	75% (71–79)	88% (85–91)	94% (91–96)
Specificity (95% C.I.)	64% (55–72)	82% (74–88)	84% (78–89)

Conclusion FICE and indigo carmine significantly improves the in vivo diagnosis of diminutive colonic polyps. This has the potential to improve the management of polyps and setting the accurate surveillance interval at the time of the procedure, with a significant impact on the cost and quality of care.

Competing interests None.

Keywords bowel cancer screening, chromoendoscopy, FICE, indigicarmine, in vivo diagnosis.