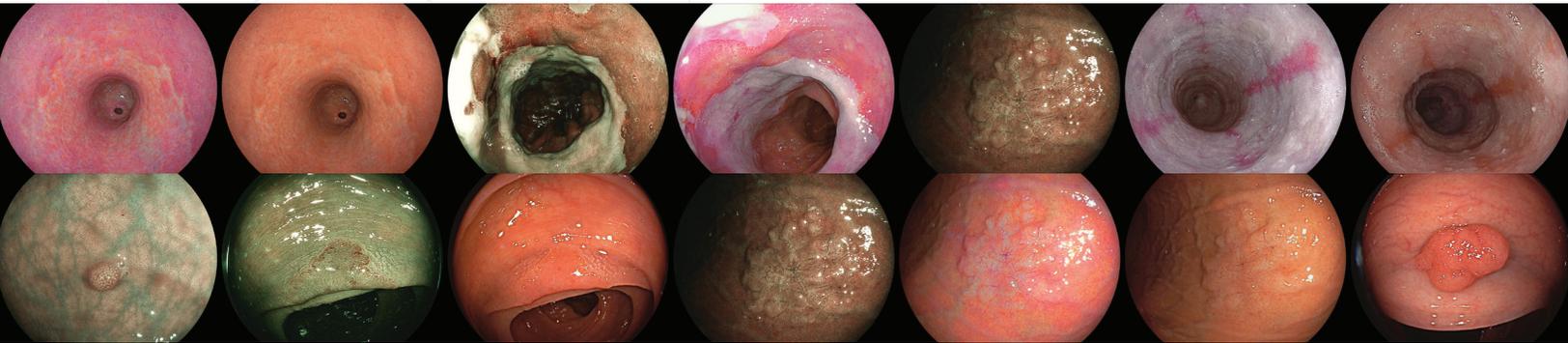


# LCI® & BLI in Clinical Studies

**Recent studies published in journals such as *Endoscopy* and *Gastrointestinal Endoscopy* examine the benefits of utilizing advanced endoscopic imaging technologies in clinical practice.**

As of the end of 2018, more than 50 clinical articles have been published on the topic of Linked Color Imaging (LCI®) and Blue Light Imaging (BLI) as newly developed image enhancing technologies used during GI procedures. The first two studies featured in this document focus on LCI, an image-enhancing technology that provides bright endoscopic images and increases color contrast. The third study explores BLI with high-definition. These special light observation modes are two of the LED outputs achieved through Fujifilm's ELUXEO® Image Enhanced Endoscopy platform.



## Published in *Endoscopy*:

### Linked color imaging reduces the miss rate of neoplastic lesions in the right colon: a randomized tandem colonoscopy study

This study compares the use of Linked Color Imaging (LCI) with White-Light Imaging (WLI) to detect neoplastic lesions in the right colon. The findings indicate that LCI could reduce the miss rate of neoplastic lesions.

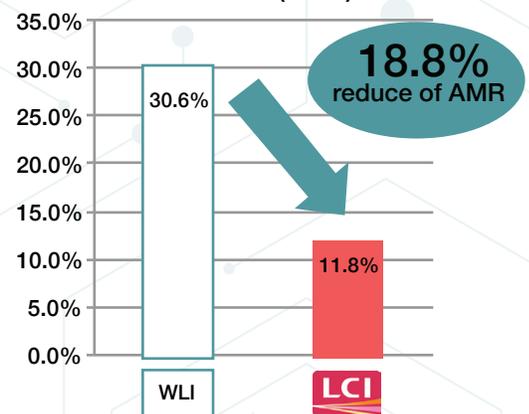
The study involved 600 patients undergoing colonoscopy— half had their right colon inspected at first pass by LCI and the other half by WLI. At the hepatic flexure, the scope was reintroduced to the cecum under LCI and a second right colon inspection was performed under WLI in previously LCI-scoped patients (LCI-WLI group) and vice versa (WLI-LCI group).

Double inspection of the right colon in the LCI-WLI and WLI-LCI groups resulted in an 11.8% and 30.6% adenoma miss rate, respectively. Moreover, in two of 300 patients (0.7%) in the LCI-WLI group, at least one adenoma was identified in the second pass only; the same was true for 13 of 300 patients (4.3%) in the WLI-LCI group.

To read the abstract, visit:

<https://www.thieme-connect.com/products/ejournals/abstract/10.1055/a-0580-7405>

#### Adenoma Miss Rate (AMR)



## Published in *Gastrointestinal Endoscopy*: Comparison of linked color imaging and white-light colonoscopy for detection of colorectal polyps: a multicenter, randomized, crossover trial

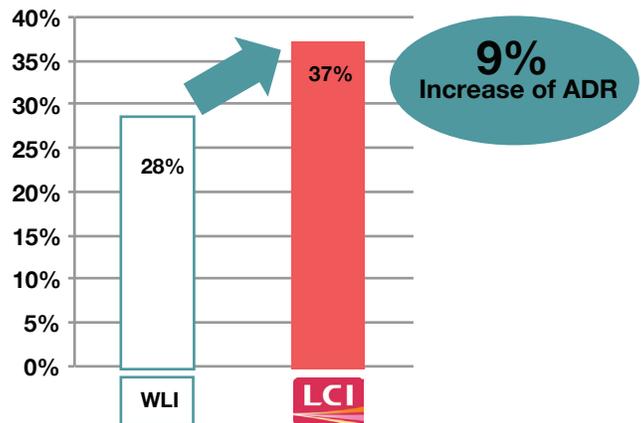
This study explores the ability of Linked Color Imaging (LCI) to improve the detection of colorectal polyps as compared with White-Light (WL) endoscopy. The findings indicate that LCI increases the ability to detect colorectal polyps and adenomas during colonoscopy.

The research team conducted a randomized control trial in three China-based hospitals. A total of 152 patients underwent crossover colonoscopies with LCI and WL endoscopy in a randomized order. All lesions were removed during the second endoscopic procedure.

The overall polyp detection rate when using LCI during colonoscopy increased significantly, by 24%, corresponding to a 91% sensitivity rate using LCI during colonoscopy for lesion detection versus 73% sensitivity when utilizing WL. The authors note that LCI identified significantly more patients with polyps, at 32%, than was found using WL only. The per-patient adenoma detection rate was also significantly higher when utilizing LCI than for WL—37% and 28%, respectively.

To read the abstract, visit: [https://www.giejournal.org/article/S0016-5107\(17\)30180-3/abstract](https://www.giejournal.org/article/S0016-5107(17)30180-3/abstract)

### Adenoma detection rate (ADR)



## Published in *Endoscopy*: BASIC (BLI Adenoma Serrated International Classification) classification for colorectal polyp characterization with blue light imaging

Utilizing new Blue-Light Imaging (BLI) technology with high definition, with and without optical magnification, researchers set out to create a new classification for differentiating subcentimetric hyperplastic and adenomatous polyps, and deeply invasive malignant lesions.

A key goal in creating this new polyp classification set was to evaluate similarity of agreement about descriptors among the various participants.

The research team created a video library of BLI images of verified polyps/cancers. Seven experienced endoscopists participated in the study by individually reviewing a series of images and independently identifying possible descriptors. Ultimately, the seven participants agreed on summarizing 12 descriptors into three main domains—polyp surface, pit appearance, and vessels.

With the aid of BLI, the new BASIC classification set takes into account both morphological features of the polyp, as well as crypt and vessel characteristics. Moreover, there was strong concordance among the observers for most of the summarized descriptors. The study determined that optical magnification had a beneficial effect in terms of interobserver agreement for most of the descriptors.

To read the abstract, visit:

<https://www.thieme-connect.com/products/ejournals/abstract/10.1055/s-0043-121570>