

ENDOSCOPY

Full-spectrum endoscopy—three lenses are better than one

A novel colonoscopy platform featuring full-spectrum endoscopy (FUSE) could advance the standard forward-viewing (SFV) colonoscopy technology used over the past four decades for colorectal cancer screening and surveillance.

SFV colonoscopes have one lens and a 170° viewing angle, with images displayed on a single screen; the FUSE colonoscope has three lenses (forward-facing, left-sided and right-sided), a 330° viewing angle and images are displayed simultaneously on three screens. In all other senses, the two colonoscopes are technically identical.

Having already shown that FUSE colonoscopy was significantly better than SFV colonoscopy at detecting simulated ‘polyps’ in an *in vitro* colon model, Ian Gralnek and colleagues tested its safety and efficacy in humans. “We simply wanted to demonstrate that the endoscopist could reach the cecum in a timely fashion, easily withdraw the colonoscope and take biopsies and perform polypectomies safely.”

Cecal intubation was achieved in all 50 patients (mean time to the cecum of 3.1 ± 1.5 min), scope withdrawal posed no difficulties, the ability to take biopsy samples or perform polypectomies was preserved and no adverse events occurred. The new platform was rated highly by the seven participating endoscopists, who had no prior experience with the new platform. “The take away message,” says Gralnek, “is that the FUSE colonoscope works well and is safe.”

We now await publication of the authors’ randomized, multicentre tandem colonoscopy study comparing the new and standard technologies. Promisingly, Gralnek reports the results are “highly significant” in FUSE colonoscopy’s favour.

Natalie J. Wood

Original article Gralnek, I. M. *et al.* A prospective cohort study evaluating a novel colonoscopy platform featuring full-spectrum endoscopy. *Endoscopy* doi:10.1055/s-0033-1344395