Odin Vision

CADDIE: Scoping out the invisible

Case study: Polyp detection
Professor Laurence Lovat, MBBS PhD FRCP

Professor of Gastroenterology and Biophotonics, University College London
Honorary Consultant Gastroenterologist, University College London Hospital
Clinical Advisor to Odin Vision

The clinical challenge

Detecting colonic polyps is challenging for even the most experienced doctors:

- Up to 25% of polyps can be missed during a colonoscopy[1]
- A 1% increase in Adenoma Detection Rate leads to a 3% reduction in cancer incidence[2]

Award-winning AI technology

CADDIE is an artificial intelligence system from Odin Vision that aids endoscopists to detect and characterise polyps during colonoscopy.

CADDIE highlights areas and displays real-time information about the visual characteristics of polyps, allowing users to characterise the tissue as adenoma or non-adenoma.

1] Liem B, Gupta N, "Adenoma detection rate: the perfect colonoscopy quality measure or is there more?" Translational Gastroenterology and Hepatology v.3; 2018 PMC5897691

2] Corley, Douglas A., et al. "Adenoma detection rate and risk of colorectal cancer and death." New England journal of medicine 370.14 (2014): 1298-1306

Patient background

Five years ago, a 64-year-old man experienced a change in bowel habits and was referred by a gastroenterologist for a colonoscopy. During the course of the procedure, two adenomatous polyps (<10mm) were removed, and a 5-year surveillance colonoscopy was recommended.

Colonoscopy with CADDIE

Professor Laurence Lovat performed the 5-year surveillance colonoscopy with the support of Odin Vision's CE-marked CADDIE system. Professor Lovat described the procedure as straightforward.

However, as he was withdrawing the endoscope, CADDIE highlighted an area which at first glance appeared to be nothing. After taking a closer look, Professor Lovat realised he was looking at a sessile serrated polyp around 15mm in size, placing it firmly in the high-risk category. Neither he nor his assistant had seen it.

Try CADDIE for yourself

Request a free trial by emailing info@odin-vision.com or go to our website

odin-vision.com

Professor Lovat on CADDIE

"I'm an experienced colonoscopist but some of these lesions are just extremely hard to find."

"The CADDIE system is very straightforward and easy to use. It has a low false positive rate which means there is minimal distraction. When I am alerted it is usually because there is a polyp I need to focus on. This minimises distraction."

"The system is cloud based. This means that there is almost no machinery in the room and updates to the AI algorithm are seamlessly pushed to the end users with no interruption to service. We always have the latest version of the software."

"CADDIE also gives me helpful sense checks. For example, there's a icon on the screen that indicates vision-quality telling me how much of the image is clear mucosa. I can switch the system on and off and it works on my normal endoscopy screen. It integrates beautifully into my workflow."

"It's very simple and very powerful"

CE