

## POLYP SIZE MEASUREMENT METHOD BASED ON ARTIFICIAL INTELLIGENCE

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Poster

Colorectal

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**A novel artificial intelligence-based polyp size measurement system (Poseidon) using water jet as reference demonstrated significantly higher accuracy than visual estimation and biopsy forceps measurement in both silicone colon models and routine colonoscopy.**

### KEY POINTS

- In a silicone colon model with 28 polyps, Poseidon achieved a median percent error of 7.4% (IQR: 3, 15.7), significantly lower than visual estimation at 25.2% (IQR: 11.8, 43.1) and biopsy forceps measurement at 20% (IQR: 9.1, 34.3) with  $p < 0.001$ .
- In 29 colorectal polyps examined during routine colonoscopy, Poseidon maintained a median percent error of 7.7% (IQR: 2.7, 12.6) compared to visual estimation at 22.1% (IQR: 12.4, 34.1) with  $p < 0.001$ .
- The Poseidon system uses artificial intelligence to analyze colonoscopy images of polyps captured with an auxiliary water jet in proximity as a measurement reference.
- Four experienced endoscopists participated in the silicone model comparison study using visual estimation and biopsy forceps methods against polyps of known size.

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