

## Background

ENDOCUFF (Olympus America) is an attachment device at the end of a colonoscope that enhances visualization of the colonic mucosa to improve polyp detection rate upon withdrawal. Some studies recommend a second pass through the right colon due to increased likelihood of missed polyps on the first pass. Documented polyp miss rates can range as high as 28% per previous studies with traditional colonoscopy. Although the ENDOCUFF-assisted colonoscopies result in lower polyp miss rates, the necessity of a second pass remains unknown. In our pilot study, we investigated the effects of ENDOCUFF on polyp detection and miss rates during second pass in the right colon.

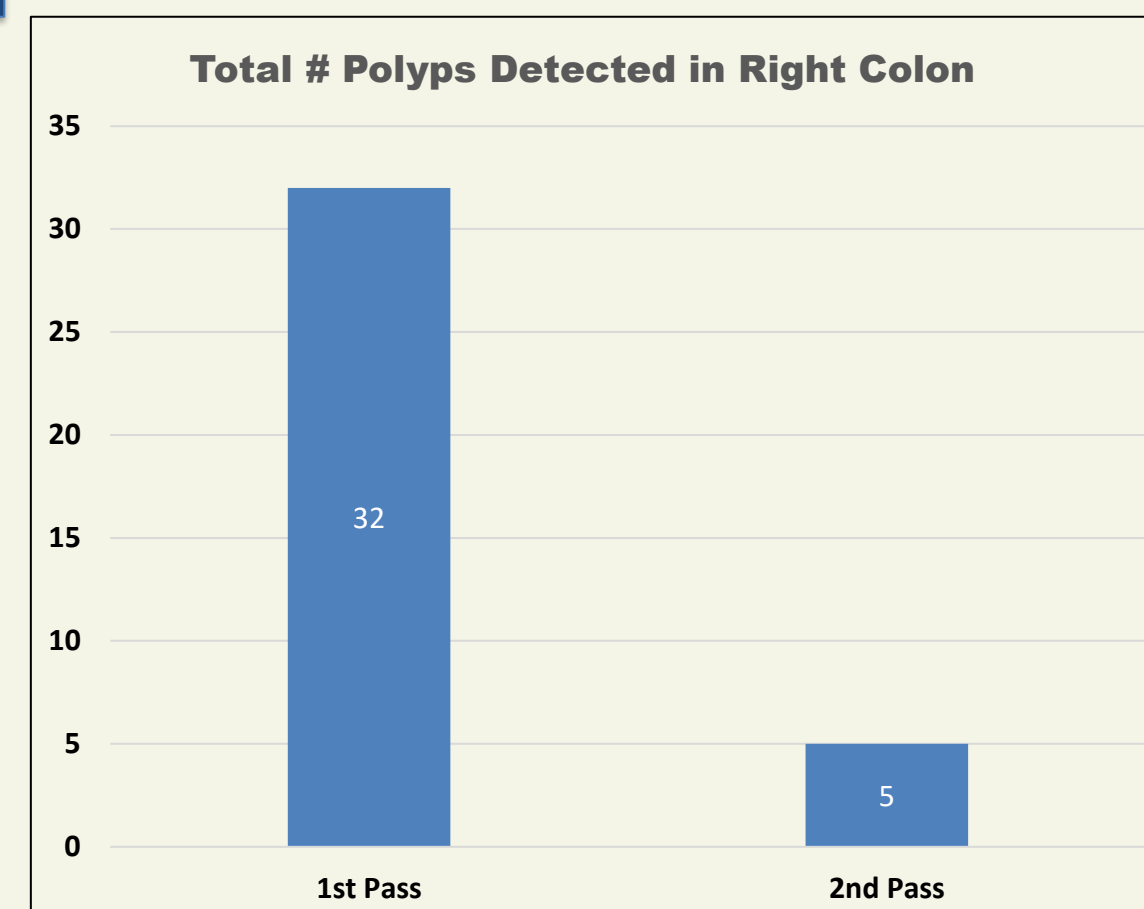
## Hypotheses

ENDOCUFF attachment during screening colonoscopies will increase adenoma detection rate particularly in the right colon. Our planned expansion to this pilot study may challenge the necessity of a second pass in the right colon.

## Methods

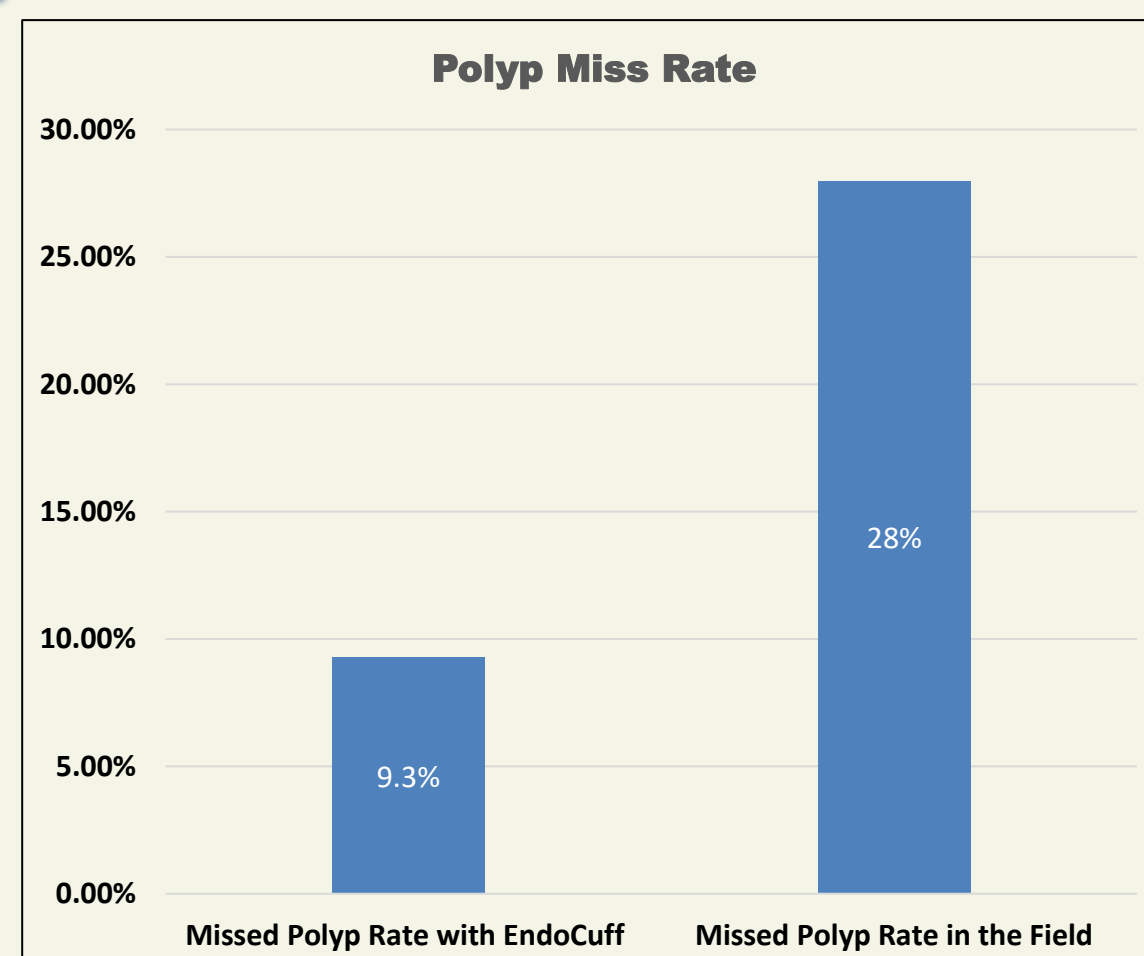
In this single-center survey-based study, 54 participants underwent screening, diagnostic, or surveillance colonoscopies with the assistance of ENDOCUFF. Participant characteristics included sex (25 males, 29 females), age (39-80), and quality of prep (93% with good or excellent prep). The number of polyps detected on first and second pass through the cecum/ascending colon were recorded and analyzed using two-proportions tests (Minitab Statistical Software).

**Figure 1**



Total number of polyps seen in the RIGHT colon during screening colonoscopies with the use of ENDOCUFF with First and a Second Pass. Each of the missed polyps were one per patient and each had good or excellent bowel prep.

**Figure 2**



5 participants of the 54 have a missed polyp in the right colon using ENDOCUFF or 9.3% compared to 28% from previous former studies.

## Discussion

ENDOCUFF expands the view of areas of the colon that are difficult to visualize. ENDOCUFF is an inexpensive and effective tool to increase polyp detection in screening colonoscopies. This attachment may decrease overall procedure time, as well as anesthesia time. This data will help us to determine whether a second pass is clinically necessary during screening and/or surveillance colonoscopy with the use of ENDOCUFF.

## Conclusion

Our preliminary data suggest that ENDOCUFF is associated with effective detection of polyps during first pass. Furthermore, ENDOCUFF resulted in significantly lower polyp miss rates. However, it remains to be determined whether a second pass is clinically necessary during screening and/or surveillance colonoscopy with the use of ENDOCUFF.

## References and Acknowledgements

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