

Single-Center Experience with an Oversleeve based Inter-procedural Colon Cleansing Device

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Background

- Inadequate bowel preparation (IBP) is reported in up to 51% of inpatient colonoscopies.
- IBP leads to repeated procedures, increased the length of stay, cost of care, and risk of missed lesions in colon cancer (CRC) screening.
- The Pure-Vu system (Pure-Vu) is an FDA-approved oversleeve for pulsed irrigation and evacuation of the effluent, allowing completion of colonoscopy.
- We describe our experience with the Pure-Vu system in patients with IBP.

Aims

- To assess the outcomes of colonoscopy with the assistance of Pure-Vu in patients with IBP.
- To review the use of Pure-Vu to assist in urgent/emergent colonoscopy in patients with lower gastrointestinal bleeding (LGIB) without prior bowel preparation

Methods

- 40 patients (≥18 years) underwent colonoscopy with the assistance of Pure-Vu between August 2019 and May 2021
- Boston Bowel Preparation Scale (BBPS) was used to assess the adequacy of colon cleaning
- Patient charts reviewed for procedural details of preparation adequacy, completion of procedure, lesions detected, and interventions performed.



Figure 1. The Workstation Controller and the Pure-Vu Oversleeve Distal Tip (www.motusgi.com)

Results

Table 1. Our experience with the Pure-Vu system

Median age	64 (range: 20-89)	
Clinical setting	35% inpatient (n=14)	65% outpatient (n=26)
Indication for Colonoscopy	55% diagnostic (n=22)	45% CRC screening/ surveillance (n=18)
Indication for the use of Pure-Vu	92.5% in IBP (n=37)	7.5% in active GI bleed (n=3)

Figure 2: Efficacy of PureVu in Inadequate Bowel Preparation (A1, A2), and in a patient with lower GI bleeding without bowel preparation (B1, B2)

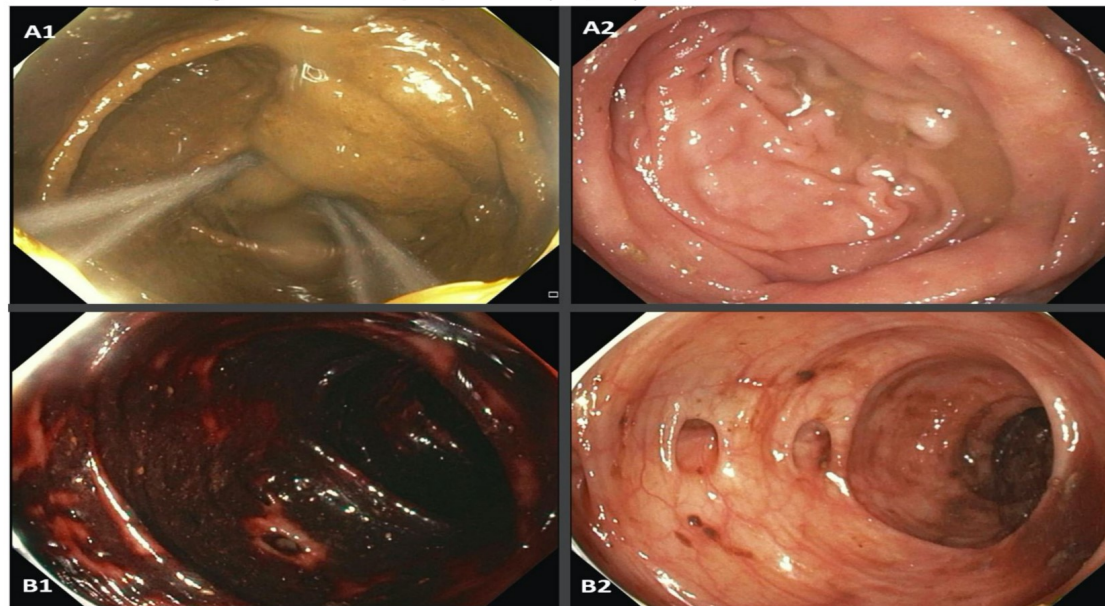


Table 2. The use of Pure-Vu in patients with IBP (n=37)

BBPS Score before (range)	3.1 (0-6)
BBPS Score after (range)	8.5 (5-9)
Cecal intubation rate	90%
Clinically relevant findings	57%
Polyp detection rate in CRC	61% (11/18)

Table 3. The use of Pure-Vu in LGIB without bowel preparation

Detect/treat diverticular bleeding
Detect/treat post-polypectomy bleeding
Diagnose severe right sided ischemic colitis

Discussion

- The Pure-Vu system improved the overall BBPS scores, cecal intubation rate, and the pathology detection rates in patients with IBP.
- Use of Pure-Vu did not interfere with the performance of endoscopic interventions, such as biopsy, cold/hot snare polypectomy, and endoscopic mucosal resection.
- Pure-Vu could also be used in emergent colonoscopy without bowel preparation, allowing the completion of procedures.
- Besides minor mucosal trauma in 2 cases, no major complications were observed with Pure-Vu.

Conclusion

- In our limited experience, we found Pure-Vu very useful in patients with IBP, especially those with prior incomplete procedures.
- The use of Pure-Vu allowed completion of procedures and interventions.
- Utility of Pure-Vu without prior bowel preparation for LGIB needs further study.

References

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