

Comparison of Efficacy of Plenvu Vs. Klean-Prep as Bowel Cleansing Agent in Colonoscopy



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Background

Bowel cleansing agents are vital part in colonoscopy in order to achieve maximal mucosal visualisation for diagnostic and therapeutic purpose. Efficacy and patient acceptability of bowel preparation are key components prior to undergo colonoscopy. up to 25% of all colonoscopies have inadequate bowel preparation. The adverse consequences of ineffective bowel preparation include lower adenoma detection rate, longer procedure time, lower caecal intubation rate, an increased electrocautery risk, miss pathology, and short intervals between examinations. Plenvu is a new, 1 litre, low volume PEG-based product indicated for bowel cleansing in adults prior to colonoscopy. Two Phase III studies have demonstrated superior colon cleansing efficacy, with comparable safety and tolerability versus standard preparations¹. With regards to plenvu one of major advantage is that No special dosage adjustment is deemed necessary in patients with mild to moderate Renal impairment or patients with mild to moderate Hepatic impairment.

Aims and Objectives

To compare the quality of bowel preparation score for colonoscopy with of Plenvu Vs Klean-Prep.

Materials and Methods

This is a single centre, retrospective observational study, comparing the quality of bowel preparation of Plenvu Vs. Klean-Prep, by extracting the first 100 colonoscopies in 2019 (with Klean-Prep), comparing with the first 100 colonoscopies in 2020 (with Plenvu), from EndoRAAd. The standard bowel preparation used for colonoscopy in University Hospital Waterford was changed from Klean-Prep to Plenvu in January 2020.

Table 1

KLEEN PREP v/s PLENVUE Comparison 2019 vs 2020			
Category	2019	2020	
General			
Total no. of patients	100	100	
Maximum age of patient	88	85	
Minimum age of patient	20	16	
Total day case	95	96	
Total inpatient	5	4	
Maximum dosage MIDAZ	12	8	
Minimum dosage MIDAZ	1	0	
Maximum dosage FENTANYL	200	200	
Minimum dosage FENTANYL	0	0	
Bowel prep score			
Excellent /good	38	55	
Adequate/Sat	48	39	
Poor	14	6	
Completion of procedure			
Splenic flexure	0	1	
Anastamosis	4	1	
Neo terminal ileum	2	2	
Caecum	54	32	
Ascending colon	2	1	
Sigmoid colon	1	1	
Terminal Ileum	37	62	
POLYP detection			
Polyp detected patient count	28	29	
No polyp detected patient count	72	71	
Comfort Score			
No Discomfort	44	53	
Minimum Discomfort	33	31	
Mild Discomfort	16	9	
Moderate Discomfort	6	5	
Severe Discomfort	1	2	

Results

This study shows that there was only 6% of colonoscopies with poor bowel preparation with Plenvu, comparing to around 14% of colonoscopies with poor bowel preparation with Klean Prep. Around 55% of colonoscopies with Plenvu achieved excellent/good bowel preparation, comparing to only 38% of colonoscopies with Klean Prep. However, procedure completion rate was similar in both group (97% in both group). Polyp detection rate was similar in both group (29% in Plenvu Vs. 28% in Klean Prep). The rate of moderate to severe discomfort was same in both group (7% in Plenvu Vs. 7% in Klean .

Conclusion

This study shows that Plenvu is superior than Klean-Prep as a bowel cleansing agent .

References

1. Bisschops R, Manning J, Clayton LB, et al. Colon cleansing efficacy and safety with 1 L NER1006 versus 2 L polyethylene glycol plus ascorbate: a randomized phase 3 trial. Endoscopy 2018 Jul 19.