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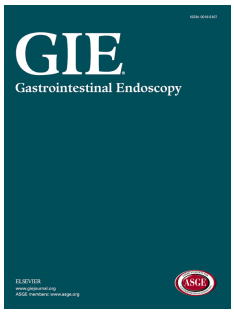

A novel device for improving visualization in an inadequately prepared colon

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A novel device for improving visualization in an inadequately prepared colon

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Abstract

Background and Aims: Adequate bowel preparation is essential for a quality colonoscopy. Poor bowel preparation can result in longer procedural times, missed adenomas, earlier repeat procedures, increase costs, and decreased patient satisfaction [1-5].

Pure-Vu (MOTUS GI, Tirat Carmel, Israel) is a system that facilitates intra-procedural cleaning of a poorly prepared colon during a colonoscopy by irrigating the colon and evacuating the fluid and feces. The study aims were to evaluate Pure-Vu's cleansing capabilities and its usability and safety, in a live animal colon

Methods: The Pure-Vu system was used by four experienced gastroenterologists in 35 Yorkshire cross swine (66% female) that received a reduced bowel preparation to ensure an inadequate bowel preparation at baseline. Before the colonoscopy the Pure-Vu was attached to the colonoscope and the baseline prep was assessed during insertion. The Pure-Vu system was then used to cleanse the colon and the prep was then assessed post-Pure-Vu use.

Results: No adverse effects and no failed or prematurely terminated cases were noted. Fourteen percent of the swine colons were adequately prepped at baseline (median BBPS score = 0 [25 percentile=0, 75 percentile =1 ;IQR=1]) and improved to 100% after use of Pure-Vu (Wilcoxon signed rank test p <0.001) (median BBPS score = 3 [25 percentile=3, 75 percentile =3 ;IQR=0]). The physicians found Pure-Vu easy and intuitive to operate.

Discussion: The Pure-Vu system effectively cleaned inadequately prepped swine colons and proved to be easy to use. The Pure-Vu device, applied in clinical practice,