

Utilization of a Transanal Platform to Maintain Pneumocolon During Colonoscopy in a Patient With an Incompetent Anal Sphincter: A Case Report

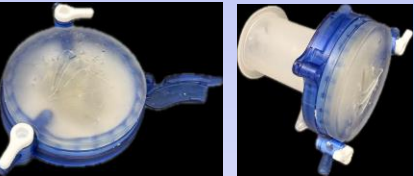
McGuire M,¹ Howard K,¹ Naparst M,¹ Mitra N,¹ Cekic V,¹ Whelan RL¹
¹Northwell Health - Lenox Hill Hospital

Introduction

Fecal or flatal incontinence affects approximately 7-15%¹ of adults and presents a significant challenge during colonoscopy. In patients with incompetent anal sphincters, insufflated gas is rapidly expelled, preventing maintenance of pneumocolon.² This results in poor visualization, incomplete examination, and difficulty performing therapeutic interventions such as polypectomy. We present a case demonstrating the use of a transanal access platform to overcome this limitation.

Methods / Case Description

A 70-year-old HIV-positive male underwent screening colonoscopy. During withdrawal, a 1 cm adenomatous-appearing polyp was identified approximately 45 cm from the anal verge. Repeated attempts at polypectomy were unsuccessful due to rapid transanal loss of insufflated gas every 20–30 seconds, resulting in collapse of the endoscopic field. The procedure was aborted and repeat examination using a transanal platform was planned. At the subsequent procedure in the operating room, a GelPOINT®Path transanal access platform (Applied Medical, CA) was inserted under general anesthesia. The anal sleeve was placed using an obturator and secured to the buttocks with sutures. A pediatric colonoscope was passed through the airtight Gel cap, and flexible sigmoidoscopy was performed.



Results

Use of the transanal platform resulted in excellent exposure and maintenance of pneumocolon, with no flatal incontinence. The index polyp was easily identified and removed using hot snare polypectomy following saline lift. Seven additional small polyps were identified and removed using hot snare, cold snare, and biopsy forceps. The platform and colonoscope were removed at the conclusion of the procedure. The patient was discharged home after an uneventful initial recovery. Final pathology demonstrated four adenomas and three hyperplastic polyps.

Discussion

Colonoscopy in patients with incompetent anal sphincters is frequently limited by inability to maintain pneumocolon, resulting in suboptimal diagnostic and therapeutic outcomes. This case demonstrates that selective use of a transanal access platform with an airtight seal can facilitate high-quality examination and successful intervention. Wider adoption of this approach may reduce missed pathology in this patient population. Further evaluation of anorectal access platforms is warranted. Design modifications, including narrower channels, may simplify insertion and reduce anesthesia requirements. Further, there is no published literature specifically documenting limitations of colonoscopy procedures in patients with fecal incontinence who cannot support pneumocolon. Further evaluation of the accuracy of screening colonoscopy in this population with and without maintenance of proper pneumocolon could serve to identify a deficiency within this population.

Conclusion

- Incompetent anal sphincters can significantly compromise colonoscopic visualization and intervention
- Transanal access platforms allow reliable maintenance of pneumocolon
- This approach enabled successful polypectomy and improved exam quality
- Transanal platforms may represent a valuable adjunct in select patients undergoing colonoscopy

References

1. Bharucha AE, Dunivan G, Goode PS, et al. Epidemiology, pathophysiology, and classification of fecal incontinence: state of the science summary for the National Institute of Diabetes and Digestive and Kidney Diseases (NIDDK) workshop. Am J Gastroenterol. 2015;110(1):127-136. doi:10.1038/ajg.2014.396

2. Bharucha AE, Knowles CH, Mack I, et al. Faecal incontinence in adults. Nat Rev Dis Primers. 2022;8(1):53. Published 2022 Aug 10. doi:10.1038/s41572-022-00381-7

Figure: 1 GelPOINT®Path transanal access platform (AppliedMedical, CA)
Figure: 2 GelPOINT®Path transanal access platform intra procedure set up with incerted colonoscope.