

2023

Slow surgical correction affects more than just the bowels

Emilia M. Clementi

Wayne State University School of Medicine, hf1309@wayne.edu

Follow this and additional works at: <https://digitalcommons.wayne.edu/crp>



Part of the [Digestive System Diseases Commons](#), [Gastroenterology Commons](#), [Medical Education Commons](#), [Psychiatric and Mental Health Commons](#), [Psychiatry Commons](#), [Surgery Commons](#), [Surgical Procedures](#), [Operative Commons](#), and the [Translational Medical Research Commons](#)

Recommended Citation

CLEMENTI EM. Reflection on Clinical Decision Science: Slow surgical correction affects more than just the bowels. Clin. Res. Prac. Nov 1 2023;9(1):eP3198. <https://doi.org/10.22237/crp/1698019620>

This Reflection is brought to you for free and open access by the Open Access Journals at DigitalCommons@WayneState. It has been accepted for inclusion in Clinical Research in Practice: The Journal of Team Hippocrates by an authorized editor of DigitalCommons@WayneState.

Slow surgical correction affects more than just the bowels

Cover Page Footnote

Conflict of Interest Statement: The author declares no conflicts of interest.

REFLECTION ON CLINICAL DECISION SCIENCE: Slow surgical correction affects more than just the bowels

EMILIA M. CLEMENTI, MSc., Wayne State University School of Medicine, hf1309@wayne.edu

Keywords: *ostomy, colostomy closure, ileostomy closure, quality of life, mental health, depression, Hartmann's reversal*

Mr. John Merrick [pseudonym], is a 44-year-old white man with a past medical history of recurrent diverticulitis, bipolar 2, borderline personality disorder, depression, obesity and alcohol use disorder who presented to the Veterans Affairs Hospital (VA) to discuss surgical interventions for reversal of his colostomy. Mr. Merrick underwent an open partial sigmoid resection with placement of an end sigmoid colostomy in January. His pathology results for a suspicious upper rectal/ lower sigmoid mass were negative for malignancy. He then had a colonoscopy done by GI a month later, which showed "patent but strictured end colostomy with moderate stenosis in the descending colon." Mr. Merrick went to clinic a few days after his colonoscopy and was advised to return to clinic in three months to discuss colostomy reversal.

When Mr. Merrick reliably presented to clinic three months later with his wife, he was eager to discuss the procedure and excited for the possibility of reversing the ostomy. He said that the ostomy has been negatively affecting his mood, social life, parenting responsibilities with his three kids, and his marriage. Furthermore, he said he has been feeling increasingly depressed and has been unable to work for the last few weeks due to "terrible pain" and "embarrassment in front of [his] coworkers," which has led to some financial difficulties. He said wants to be the "type of father that has the ability to put his kids' needs before his ostomy's needs." He also described the humiliation that he felt when his ostomy would produce gas; his lack of control over these situations made him "not want to leave the house." He was eager to travel and backpack in the mountains with his dad in Tennessee but was unable to go with the ostomy bag due to concerns of its upkeep. He used to love going to the gym but now his ostomy bag would "dangle by [his] legs when [he] did a squat." Mr. Merrick's wife echoed these concerns saying that he "doesn't participate in his normal routine anymore," and he seemed "more depressed over the last few weeks," which has been negatively affecting their intimacy.

The care team discussed the risks of an ostomy reversal such as small bowel obstruction, fecal incontinence, infection, bleeding, but failed to discuss how Mr. Merrick's social situation and previous psychiatric history were being negatively affected by leaving it in place. Without these increased risks in mind, Mr. Merrick was boarded for the procedure many months later in September. His eagerness for the procedure suggests that Mr. Merrick would have been amenable to an earlier date, had it been offered. A review of UpToDate was performed to evaluate the current guidelines on the timing of ostomy reversal.

The American Society of Colon and Rectal Surgeons currently does not have a recommendation for optimal timing of colostomy reversal, but some studies show that it is safe to reverse as early as 45 to 110 days after Hartmann procedure for diverticulitis in select patients.^{1,2} However, Danielsen et al. cited that "it is safe to close a temporary ileostomy 8 to 13 days after rectal resection and anastomosis for rectal cancer in selected patients without clinical or radiological signs of anastomotic leakage." There is a lack of consensus on the optimal timing for colostomy reversal; the American Society of Colon and Rectal Surgeons has not offered specific guidelines.² Resio et al. showed that the average time to reversal in a large U.S. retrospective cohort was 129 days.¹ Mr. Merrick was offered an ostomy reversal almost double this time at 248 days after his index surgery. A study conducted at VA hospitals similar to Mr. Merrick's have shown a correlation between younger age and earlier ostomy reversal, providing further evidence that he should have been offered the procedure.³

EMILIA M. CLEMENTI, MSc., is a fourth-year medical student in the Wayne State University School of Medicine.



When Mr. Merrick presented punctually in September for his colostomy reversal there were two loops of small bowel that had fistulized to the sigmoid colon that required two additional anastomosis formations and a significant amount of intra-abdominal adhesions, which required lysis for an additional 2 hours. Thus, the procedure took about 4 hours longer than anticipated, putting him at an increased anesthesia risk. The increased interval between his initial surgery in January and his reversal in September allowed for the formation of adhesions and fistulas in his bowels. Mr. Merrick's longer operation, increased risk of depression, and decreased quality of life overall led the team to truly question whether the reversal could have been completed earlier.

Mr. Merrick was advised to return to clinic an arbitrary four months after his index procedure to initiate discussion of reversal. He promptly returned in May for this discussion and was boarded for the procedure much later in September. This delay was to provide time for the "necessary pre-op testing". However, only a CT abdomen/pelvis was required, which was ordered same day. Therefore, Mr. Merrick waited unnecessarily for a procedure that could have been offered to him many months earlier. The benefits of early ostomy reversal included decreased length of reversal procedure (and thus anesthesia risk), improved psychological well-being, among many others and these benefits were never communicated to him.⁴ The psychological detriments that ostomies have on individuals are numerous; one study even demonstrated how ostomies trigger significant depressive symptoms with alterations in neurotrophins levels in patients' serum.⁵ Yet, there are still some demonstrated risks of early ostomy reversal, with some studies saying it should not occur before 60-90 days after proctectomy because this timing allows patients to recover from primary surgery, intra-abdominal adhesions are more manageable, and stoma inflammation and edema have resolved.⁴ Then again, delaying stoma closure continues to expose patients to various complications including, "poor stoma site, dehydration, acute renal failure, need for parenteral nutrition, peristomal dermatitis, parastomal hernia, prolapse, retraction, and stenosis."⁶

Relevance to Clinical Decision Science

Clinical decision science focuses on viewing patients holistically, including their social context, in order to provide the most feasible, beneficial, and efficacious recommendations. This report highlights how the benefits of early colostomy outweighed the risks for Mr. Merrick when evaluating his social and cultural values in addition to his health status. His mental health concerns should not have been disregarded, as mental health is a vital aspect of wellbeing that drastically affects one's social context. Because his ostomy triggered his depression, Mr. Merrick withdrew from his work, family, and friends leading to financial insecurity and marital issues. A tailored clinical decision that explored his individual values could have prevented this negative outcome. Mr. Merrick should have played a more central role in this decision making. Especially when there is debate regarding clinical decisions, with no set guidelines, patients should be offered all feasible options and allowed to choose. Furthermore, mental health is disregarded by many physicians outside of the psychiatric community, and non-psychiatric physicians need to ask more questions regarding the burden of mental illness on their patients. Understanding a patient's psychiatric history can help surgical teams anticipate and avoid adverse outcomes.² In conclusion, this case illustrates how a tailored approach with regard to the patient's mental and social wellbeing, instead of merely their physical, can lead to better outcomes overall.

Conflict Of Interest Statement

The author declares no conflicts of interest.

References

1. Resio BJ, Jean R, Chiu AS, Pei KY. Association of Timing of Colostomy Reversal With Outcomes Following Hartmann Procedure for Diverticulitis. *JAMA Surg.* 2019;154(3):218-224. <https://doi.org/10.1001/jamasurg.2018.4359>
2. Hendren S, Hammond K, Glasgow SC, et al. Clinical practice guidelines for ostomy surgery. *Dis Colon Rectum.* 2015;58(4):375-387. <https://doi.org/10.1097/DCR.0000000000000347>
3. Mohammed Ilyas MI, Haggstrom DA, Maggard-Gibbons MA, et al. Patients With Temporary Ostomies: Veterans Administration Hospitals Multi-institutional Retrospective Study. *J Wound Ostomy Cont Nurs.* 2018;45(6):510-515. <https://doi.org/10.1097/WON.0000000000000478>
4. Sherman KL, Wexner SD. Considerations in Stoma Reversal. *Clin Colon Rectal Surg.* 2017;30(3):172-177. <https://doi.org/10.1055/s-0037-1598157>



CLEMENTI EM. Reflection on Clinical Decision Science: Slow surgical correction affects more than just the bowels. *Clin. Res. Prac.* Nov 1 2023;9(1):eP3198. <https://doi.org/10.22237/crp/1698019620>

5. Bavaresco DV, Schwalm MT, Jornada LK, et al. Depressive symptoms and neurotrophin levels in ostomy patients. *J Bras Psiquiatr.* 2018;67(3):166-173. <https://doi.org/10.1590/0047-2085000000203>
6. Shabbir J, Britton DC. Stoma complications: a literature overview. *Colorectal Dis.* 2010;12(10):958-964. <https://doi.org/10.1111/j.1463-1318.2009.02006.x>
7. Afford RM, Ball CG, Sidhu JA, Sekhon MS, Hameed MS. Improving Surgical Quality for Patients With Mental Illnesses: A Narrative Review. *Ann Surg.* 2022;275(3):477-481. <https://doi.org/10.1097/SLA.0000000000005174>

