A Retrospective Look at Visceral Manipulation on Gastrointestinal Complaints in an Inpatient Setting

Background

- Visceral Manipulation (VMM) treatment derived from two forms of manual therapy practice: Physical Therapy (PT) soft tissue mobilization and Osteopathic Manipulative Therapy (OMM).
- A number of pathologies can cause limited or dysfunctional fascial mobility. This restricted mobility can cause a patient to experience pain, muscle dysfunction, and bowel abnormalities.[1]
- The causes of constipation are often multifactorial. Abdominal massage should be considered a vital part of an integrated bowel management program.[2] Several studies have concluded that abdominal massage decreases the severity of constipation as well as increasing bowel movements.
- VMM has no risk from general anesthesia or surgical infection in contrast to surgical intervention for bowel obstruction.[3] These gentle treatment techniques target abnormal fascial movements, which restores balance to the affected and surrounding organs.[4]
- VMM is rarely practiced alone, and requires virtually no recovery time,[3] allowing patients to immediately engage in daily activities. As such, visceral manipulation can be successfully combined with functional activity for patients in the inpatient setting.

Objective

The purpose of this retrospective study is to determine the clinical effects of applying VMM & Physical Therapy to patients with gastrointestinal complaints. Specifically, we evaluated patient's pain level, length of stay, and time to bowel function.

Methods

- Retrospective data was obtained from HCA Healthcare electronic medical records.
- 56 patients during the selected study period who were under observation or inpatient status at the hospital for complaint of one of the identified inclusion diagnoses were identified.

Study Period:
October 1, 2020 - October 1, 2022

Target Diagnoses:
Constipation
Fecal Impaction
Ileus
Bowel Obstruction

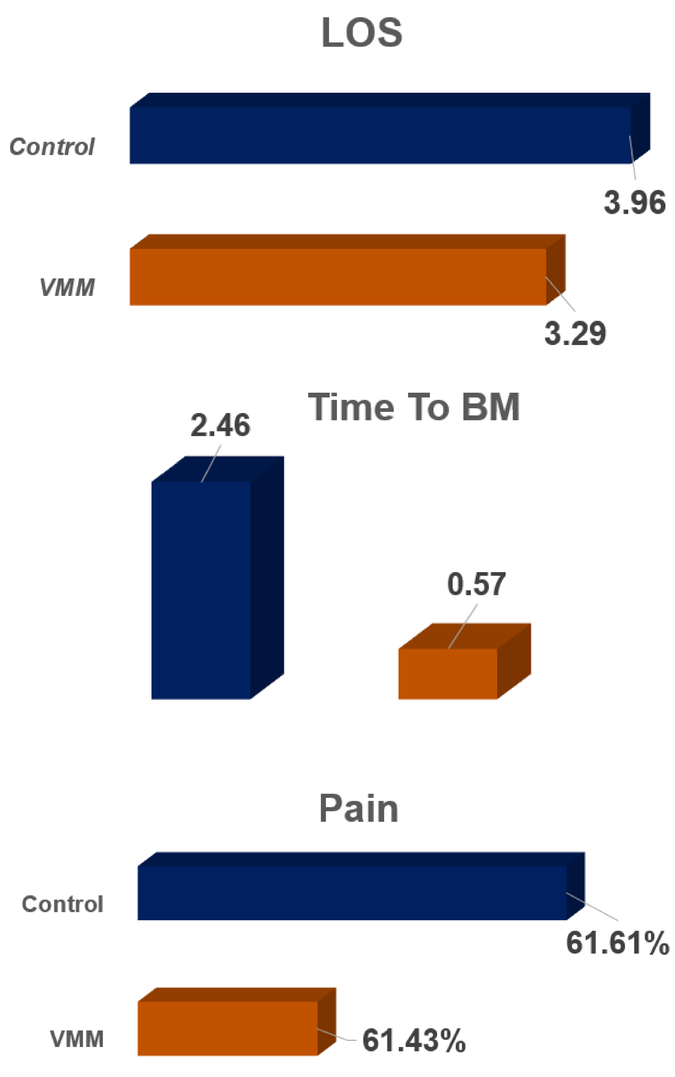
Age Range:
25 - >89 years old

- Six (n=6) Patients were excluded for incomplete pain/bowel documentation, three (n=3) for elopement/left against medical advice, and four (n=4) for visit coding error.
- Patients (n=43) that met inclusion criteria were separated into one of three categories:
  - **Control** (n=28): Above listed diagnoses with medical management only.
  - **Treatment** (n=14): All diagnoses who received medical management plus orders for Physical Therapy to complete Visceral Manipulation.
- The orders for Physical Therapy were determined solely by provider discretion at the time or service.

Results

Comparison of length of stay (LOS), time to first bowel Movement (BM), and % pain reduction during hospital stay

	Length of Stay (LOS)	Time to Bowel Movement (BM)	Pain Reduction (%)
Control- Standard Medical Management	3.96 days	2.46 days	61.61%
VMM- Medical Management + Therapy	3.29 days	0.57 days	61.43%
P Value	0.78	***<.0001***	0.975



Discussion

- Our study showed a statistically significant reduction in time to first bowel movement with the use of VMM treatment. Additionally, clinically significant, though not statistically significant, a reduction in length of hospital stay for those who received VMM was down by almost 0.7 days. This correlates to reducing average length of stay by <4 days which is almost a 25% reduction. This is crucial in considering patients return to quality of life and decreasing risk of hospital acquired infections.
- Pain reduction was difficult to fully evaluate. Pain perception may be delayed after having the time of bowel movement. There is also the possibility of confusion with perception of pain at other sites or changes in medications through stay.
- Recommendations for future studies include:
  - Larger sample size
  - Patients admitted only for the listed diagnoses or limiting comorbid conditions and confounding medical presentation
  - Standardized pain medication regimen and documentation protocol

Conclusion

- This study highlights the benefit of VMM and its' use as a pivotal treatment modality in patients gastrointestinal complaints and issues. Importantly, VM has practically no risks in contrast to other current management options, such as surgical intervention and medications.[3]
- Considering that the length of hospital stay for many patients can be lengthened due to lack of bowel movement, a reduction in time to first bowel movement is clinically and statistically significant. In additional, there is a potential for physicians to minimize medication side effects or electrolyte abnormalities from medical bowel regimens by using VMM treatment as an adjunct.
- According to the National Institute of Diabetes and Digestive and Kidney Diseases (NIDDK), the United States has over 21 million hospitalizations per year related to digestive diseases, with an associated cost of more than $141 billion dollars.[5] As such, this study and the introduction of VMM treatment has tremendous potential to reduce associated costs of inpatient hospital stays.

References

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