Bleeding complications from fecal management systems in the COVID era: A single center experience

Mark S. McFarland MD MSc[1], Kenneth W. Hung MD MS[2], Darrick K. Li MD PhD[2], Michelle L. Hughes MD[2]
[1]Section of Gastroenterology, Department of Internal Medicine, Bridgeport Hospital, Yale New Haven Health, Bridgeport, CT
[2]Section of Digestive Diseases, Department of Internal Medicine, Yale School of Medicine, New Haven, CT

Introduction

Fecal management systems (FMS) are for hospitalized patients with diarrhea and pressure wounds to decrease the risk of skin breakdown or infection by keeping skin clean and dry.

These devices are believed to be safe and effective, but there are limited data demonstrating complication rates[1,2].

Contraindications to FMS placement include[3]:

- Hemorrhoids
- Severe rectal or anal stricture or stenosis
- Rectal mucosal impairment
- Large bowel or rectal surgery within the last year
- Device use beyond 29 days

Objective

To investigate patient characteristics with FMS use and subsequent development of severe bleeding complications.

Methods

Review of endoscopy reports from hospitalized patients undergoing flexible sigmoidoscopy or colonoscopy between August 2019 – August 2021.

16 patients were identified who developed severe bleeding, defined as requiring a blood transfusion, endoscopy or embolization.

Demographics, medications, and hospitalization characteristics were extracted from the medical record.

Mean and standard deviation were calculated for continuous variables and percentages were calculated for categorical variables.

Results

Variable	N (%) or mean (SD)
Length of hospitalization (days)	67.4 (30.6)
Death during hospitalization	8 (50.0)
Hospitalization in intensive care unit (ICU)	13 (81.3)
Age (years)	63.4 (14.9)
Male sex	13 (81.3)
Race	
White or Caucasian	8 (50.0)
Black or African-American	6 (37.5)
Asian	2 (12.5)
Body mass index (kg/m^2)	26.9 (6.7)
History of hemorrhoids	3 (18.8)
Immobility	12 (75.0)
Mechanical ventilation	11 (68.8)
Aspirin use	10 (62.5)
Antiplatelet use	3 (18.8)
Anticoagulant use	8 (50.0)
NSAID use	2 (12.5)
Bowel regimen use	12 (75.0)
Vasopressor use	9 (56.3)
COVID-19 diagnosis	7 (43.8)
Rectal tube order placement	6 (37.5)
Duration of rectal tube use (days)	18.5 (14.5)
Rectal tube placement >29 days	3 (18.8)
Receipt of blood transfusion	15 (93.8)
Units of packed red blood cells received	6.1 (6.3)

Table 1. Characteristics of patients undergoing sigmoidoscopy or colonoscopy for bleeding from rectal tubes (n =16).

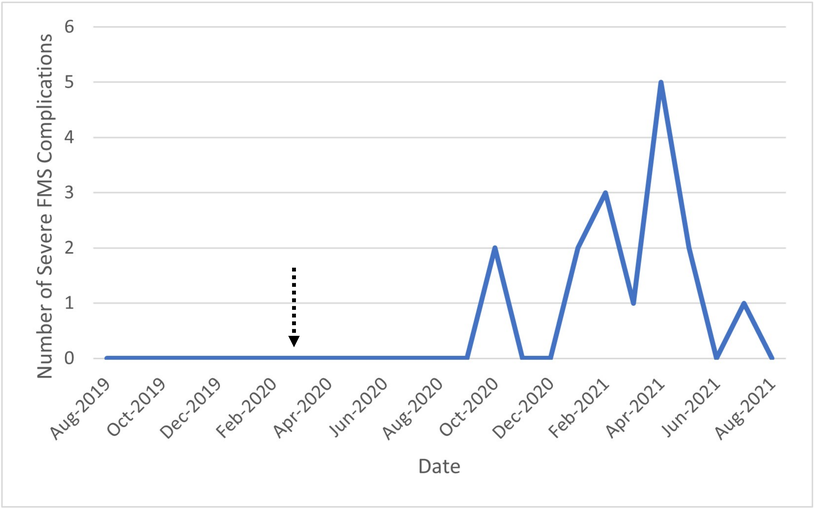

Figure 1. Total number of fecal management systems (FMS) with severe bleeding complications from August 1, 2019 - August 1, 2021. Arrow indicates first reported Covid-19 case in Connecticut.

Limitations

It is unclear how COVID impacted rates of FMS complications.

Baseline utilization of FMS could not be assessed in our center due to inconsistent reporting in the medical record.

Conclusions

Careful attention to hemorrhoids, FMS placement >29 days, and anticoagulant use is important to improve patient safety.

Future pathways in limiting and optimizing appropriate FMS placement are being developed to improve patient safety and to avoid adverse events.

References

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