

## Rectal Physiotherapy: An Unusual Cause of Anemia during Rectal Cancer Follow-up

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### Abstract

**Background:** while rectal bleeding is a main concern during rectal cancer follow up, but it is not always due to tumor recurrence and other reasons should also keep in mind.

**Case Presentation:** A 56 y old woman who is known case of rectal cancer (T3N0) with previous history of surgery and chemo radiotherapy referred for evaluation of anemia. During her routine follow up visits, her oncologist informed about anemia (HB 10.2mg/dL, MCV 86fM), so request a full evaluation of GI tract including upper endoscopy and colonoscopy. She had not any complain except some fatigue and paleness. Her endoscopy was completely normal. During colonoscopy, the remained colon including site of anastomosis, descending, transverse, ascending and cecum sow completely normal but upon withdrawal of scope, there was brisk bleeding beside surgical sutures. The patient questioned about any bleeding and she mention rectal bleeding after sessions of rectal physiotherapy and rectal probe insertion for biofeedback therapy to prevent incontinence. So the cause of anemia diagnosed as rectal physiotherapy and biofeedback and the patient reassured and managed with intra venous iron (Ferinject 500mg). Her next follow up was totally normal without any complain.

**Conclusion:** Rectal rehabilitation could result in rectal bleeding and anemia and should keep in mind as a potential reason during rectal cancer follow up.

**Keywords:** Rectal physiotherapy, Biofeedback, Rectal cancer, Anemia

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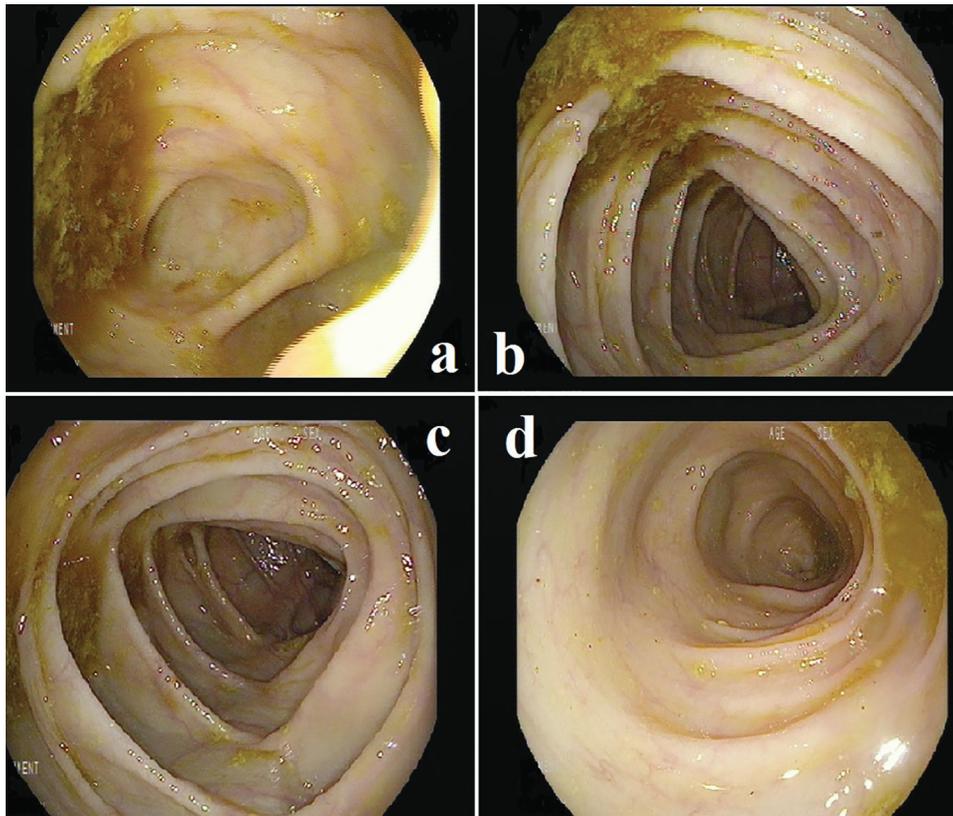
### Introduction

During rectal cancer follow up, Rectal bleeding is a worrisome sign that warn about tumor recurrence but there are some benign reasons, which present with bleeding and always should keep in mind. In this case report, we present a known case of rectal cancer who present with rectal bleeding during

her follow up and despite concerns about recurrence, its proved to induce because of rectal manipulation during physiotherapy.

### Case Report

A 56 y old woman who is known case of rectal cancer (T3N0) with previous history of surgery



**Figure 1:** Normal colonic investigation during colonoscopy (a: cecum, b: ascending colon, c: transverse colon, d: descending colon).

and chemo radiotherapy referred for evaluation of anemia. During her routine follow up visits, her oncologist informed about anemia (HB 10.2mg/dL, MCV 86fM), so request a full evaluation of GI tract including upper endoscopy and colonoscopy. She had not any complain except some fatigue and paleness. Her endoscopy was completely normal. During colonoscopy, the remained colon including site of anastomosis, descending, transverse, ascending and cecum sow completely normal (Figure 1) but upon withdrawal of scope, there was brisk bleeding beside surgical sutures (video-image, Video 1).

The patient questioned about any bleeding and she mention rectal bleeding after sessions of rectal physiotherapy and rectal probe insertion for biofeedback therapy to prevent incontinence.

## Discussion

Fecal incontinence (FI) define as involuntary loss of liquid and/or solid stool and estimated to affects 0.25–6% of the population (1, 2). Risk factors for FI are age, female gender, obesity, smoking, pharmacotherapy and weakness and trauma of pelvic Floor muscle (PFM) (3). In this regard, one of the reasons is iatrogenic trauma during rectal cancer resection which can improve by rectal rehabilitation (4). Biofeedback is one of the techniques that supports the learning and facilitation of PFM exercises and is a commonly used technique during rectal rehabilitation (5). In the management of FI, biofeedback



**Video\_image:** Bleeding beside surgical suture.

**Video 1:** Bleeding beside surgical sutures during scope retrieval (supplementary file).

techniques include anorectal manometry and surface or endoanal EMG. Electrical stimulation is a technique used to treat many pelvic floor dysfunctions which passively contracts the stimulated muscles and can be performed with surface perineal electrodes, as well as vaginal and rectal electrodes (6). Electrostimulation of the rectum reduces the tendency of the sphincter to fatigue and improves the sensory function of the rectum. Electrostimulation is often combined with PFM training and biofeedback to identify contractions and increase PFM strength (7).

While Pelvic floor rehabilitation (PFR) is one of the most important treatments for fecal incontinence in general, with success rates of 50–80% and generally consider as a safe method (8), insertion of rectal probe can traumatize the rectal mucosa especially beside surgical suture and should keep in mind as a potential cause of bleeding and anemia during rectal cancer follow up.

### Conclusion

Rectal rehabilitation, as a routine therapeutic method for rectal incontinence, could result in rectal bleeding and anemia and should keep in mind as a potential reason during rectal cancer follow up.

### Ethics

Written informed consent was obtained from the

patient of this case report and any accompanying images.

### Acknowledgment

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### Authors' Contribution

Pezhman Alavinejad as corresponding author and the main endoscopist. Ali Akbar Abravesh as main colleague and endoscopy assistant.

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**Conflicts of interest:** None declared.

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