

# Radiation Induced Ileovesical Fistula: A Rare Case of Chronic Diarrhea

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## INTRODUCTION

- Chronic diarrhea (CD) is a common gastrointestinal manifestation. Etiologies include infectious diarrhea, IBD, IBS, malabsorption, medication-induced and post-surgical.
- It is a leading cause of healthcare utilization mostly due to the broad workup needed to achieve a diagnosis.
- Here we present a rare presentation of CD caused by longstanding effects of radiation.

## CASE PRESENTATION

- A 50-year-old woman with a medical history of cervical cancer treated with radiation therapy 20 years ago and recurrent cystitis who was admitted due to 2-month history of CD, decreased urine output, and dysuria.
- The patient reported more than 5 episodes of watery diarrhea daily associated with abdominal and suprapubic discomfort.
- Physical exam was remarkable for a tachycardic, underweight and malnourished female with a non-distended abdomen with high pitch bowel sounds.
- Labs showed preserved renal function with severe metabolic acidosis. A urinalysis revealed pyuria and bacteriuria. Fecal leukocytes, stool culture and ova and parasite resulted negative.
- Empiric therapy for UTI and *C. difficile* were provided due to recent antibiotic use for recurrent cystitis. After ruling out *C. difficile* and no improvement of symptoms, loperamide was started without improvement.
- A CT Enterography was ordered to rule out any structural cause of diarrhea but came unremarkable. Additional workup for less common causes of diarrhea like viral, parasitic, and metabolic tests were ordered however all were negative.

- A colonoscopy was done but no endo-histologic abnormality was found.
- After 2 weeks, the patient reported an increased frequency of diarrhea and anuria, but renal function remained stable reason for which an enterovesical fistula (EVF) was suspected.
- A CT cystography was then performed confirming our suspicion of a enterovesical fistula. Due to poor nutritional status, the patient was not a candidate for surgery.
- To divert the urine and decrease the fistula's flow to the ileum, nephrostomies were placed.
- After 3 days the CD and MA resolved hence, the patient was discharged.

## ANCILLARY STUDIES

	Admission	After Nephrostomy
PH	7.18	7.45
Bicarbonate	8.7 mEq/L	35 mEq/L

## IMAGING STUDIES



Image 1. Abd/Plv CT showing the ileovesical fistula



Image 2. Abd/Plv CT showing the ileovesical fistula



Image 3. Abd/Plv CT showing the nephrostomies

## DISCUSSION

- Here we portray a case of an ileovesical fistula (IVF) causing CD, recurrent UTI, and severe MA caused by the effect of radiation.
- It is important to report this case to raise awareness of the importance of the history of radiation in patients with CD to decrease invasive and expensive tests in the diagnostic process.
- Also, to highlight the benefits of nephrostomies as a tool in the management of IVF and its impact on the quality of life of the patients.

## CONCLUSION

- The identification of radiation as a risk factor for chronic diarrhea could save time and resources at the time of diagnosis.
- The use of nephrostomies in the setting of IVF could result in improvement of quality of life this patients.

## REFERENCES

- Chiam, K. H., & Muthukaruppan, R. (2021). Endoscopic closure of a radiation induced colovesical fistula using the novel over-the-scope Padlock clip system—a case report. *AME Surgical Journal*, 1, 5–5. <https://doi.org/10.21037/asj-21-6>