

## Background

- Hemospray is currently used for the treatment of Upper Gastrointestinal bleeds and not Lower Gastrointestinal bleeding. It is a novel hemostatic agent, using an inorganic, inert powder, and is very successful in controlling Upper Gastrointestinal Bleed
- Hemospray is made of a Proprietary mineral powder
- It can be used in a wide area of the gastrointestinal mucosa
- and thus is very effective in controlling bleeding from widespread vascular ectasias.
- There is no systemic absorption and toxicity associated with its use. It also does not damage the underlying mucosa such as with cautery.

## Case Presentation

- Our patient is a 72-year female with refractory hemorrhagic radiation proctitis from high dose radiation treatment for cervical carcinoma. On admission, her vital signs were stable and colonoscopy showed diffuse rectal radiation proctitis (Figure 1). APC was performed and hemostasis was initially achieved. However, significant hemorrhage recurred, causing the hemoglobin to fall from 10.5-to 8.8. Halo barrx, another thermal coagulation method, was tried but was unsuccessful in achieving complete hemostasis despite 68 applications of the channel rfa endoscopic catheter.
- Hemospray, which is traditionally used to treat UGIB was used and was successful in stopping the hemorrhage (Figure 3). The patient was monitored for 3 more days before being discharged from the hospital.

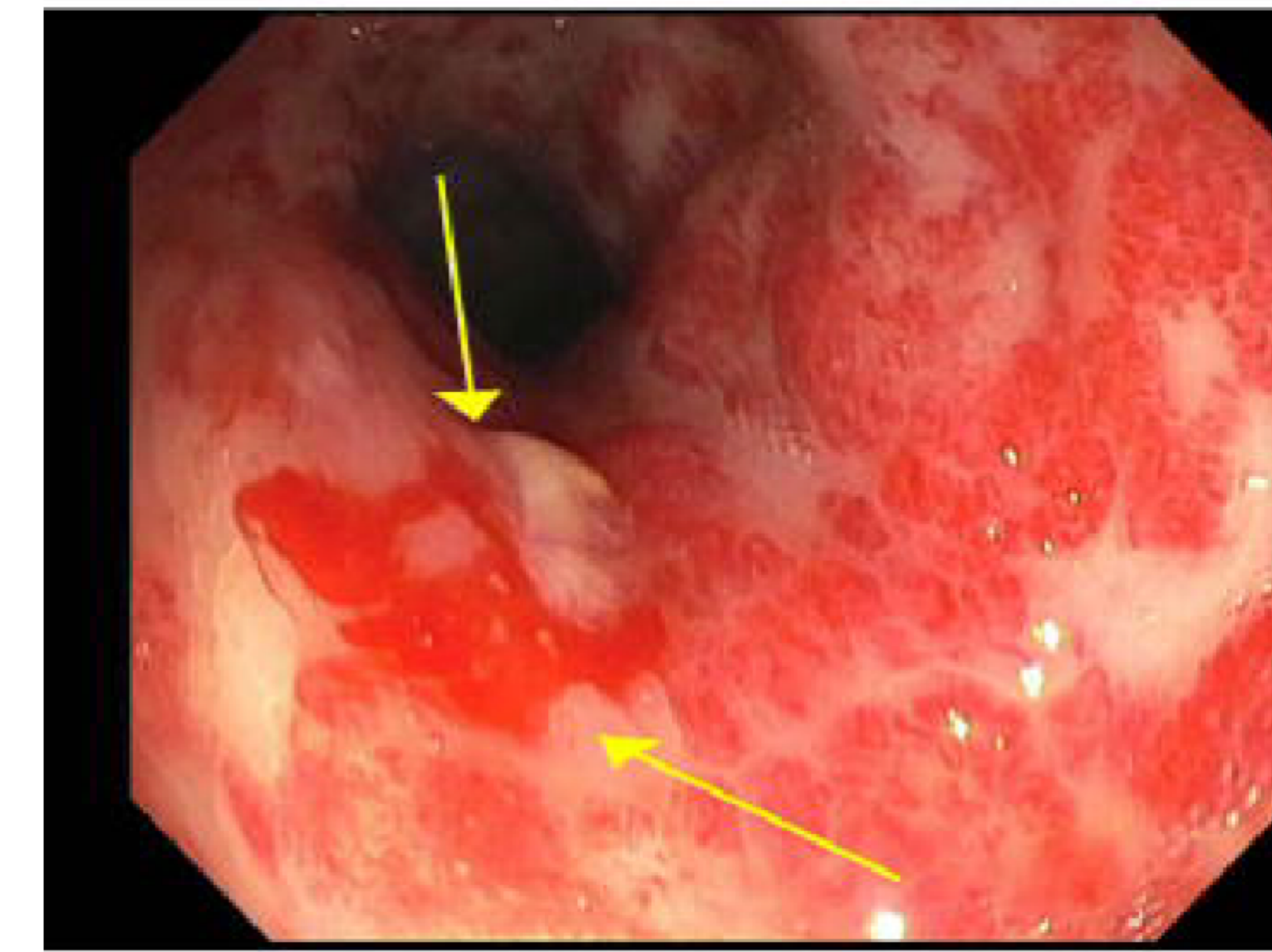
## Vitals & Physical Examination

- Vital signs on admission: Temp 97.5 BP 155/95, Pulse 86 bpm, RR 18 , saturating 99% on room air
- Physical Exam:
  - GEN: Awake alert, NAD, on ra
  - EYES: Anicteric, Clear sclerae
  - NECK: Supple, No JVD
  - CHEST: B/L clear to auscultation, no wheezing or rales.
  - CVS: S1/S2/0, RRR
  - ABD: Soft, non-distended
  - SKIN: No rash or break down

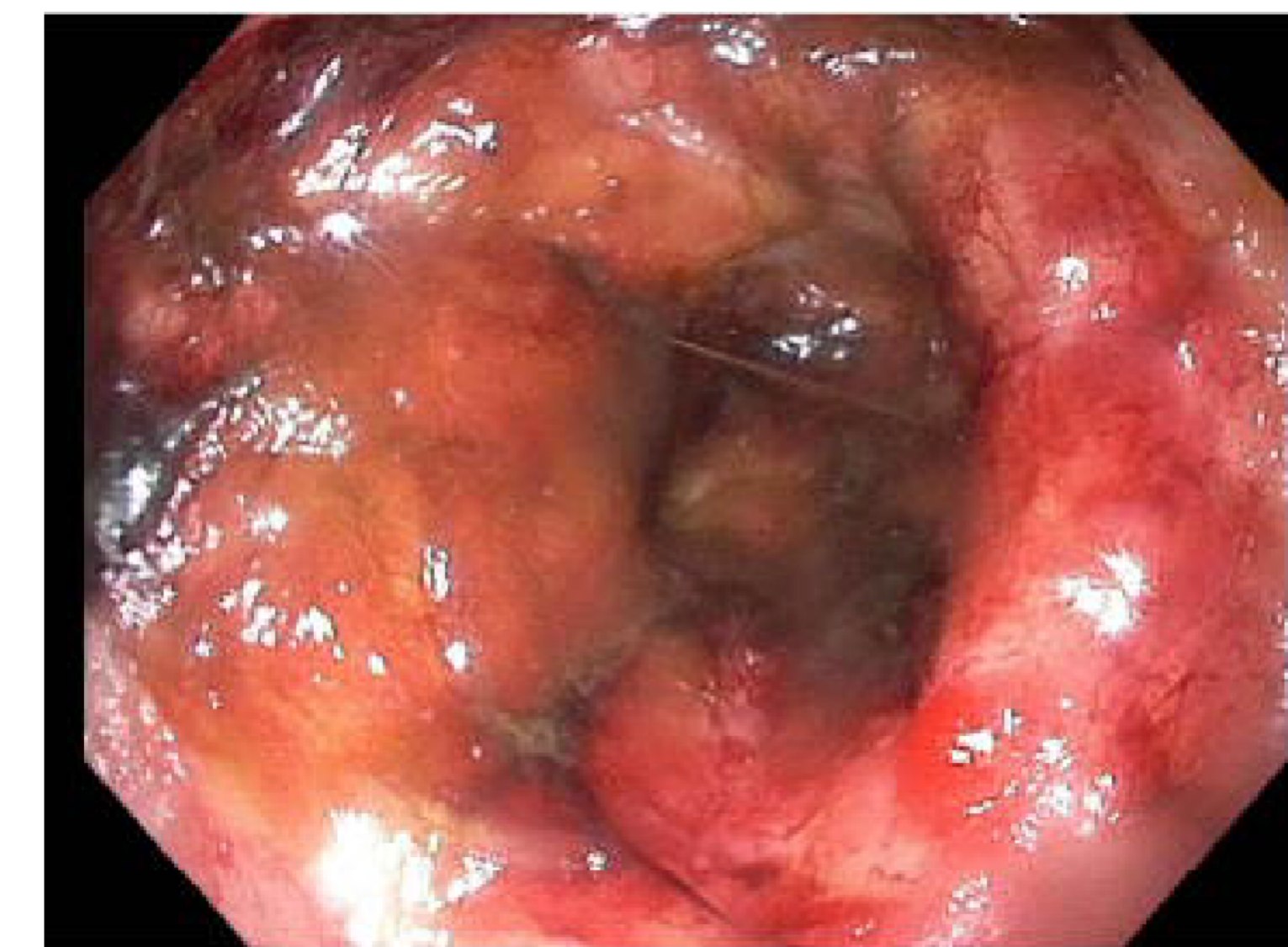
## Clinical Course

- She came in for weakness and diarrhea persisting for 7 days
- She has past medical history of recurrent Clostridium difficile and is currently positive on PCR and post-prandial diarrhea following radiation therapy for cervical cancer
- Treatment was initiated with PO Vancomycin
- Patient began having bright red blood per rectum
- Hemoglobin fell from 10.5 to 8.8
- Colonoscopy was performed demonstrating diffuse AVMs in the rectum, likely radiation proctitis (Figure 1) one area with active oozing status post APC with resolution of bleeding, random biopsy was obtained
- Patient continued to have BRBPR and Halo Barrx was attempted but ultimately she had another episode of bleeding
- Hemospray was used which stopped the bleeding and 3 days later patient was discharged with no additional signs of bleeding

## Colonoscopy Images



● Figure 1. Rectum with bleeding AVM



● Figure 2. Rectum with continued bleeding during the sigmoidoscopy



● Figure 3. Rectum following hemospray application

## Discussion

- Given the success in this case Hemospray has potential applications in controlling lower gastrointestinal bleeds
- When sprayed at the bleeding area, it forms an adhesive layer in contact with the fluid causing mechanical compression and promoting hemostasis by increasing the concentration of platelets and clotting factors at the bleeding site
- Hemospray has been successful in a European case series and other case studies, clinical research should be done for its effectiveness and potential side effects in lower gastrointestinal bleeds

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## Reference

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