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PHAST PHACT

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TODAY'S TOPIC:

The Rational Pharmacological Treatment of Radiation Proctitis

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If you have a topic you would like the pharmacy team to answer, please send your suggestions to: pruskowskija@upmc.edu

Background:

Radiation proctitis is epithelial damage to the rectum due to radiation as a treatment of rectal, anus, cervix, uterus, prostate, bladder and testicular cancer. It is a relatively frequent late (after 3-6 months) side effects that affects 5-20% of patients with cancer. These side effect range from diarrhea, mucus discharge, urgency, tenesmus, and uncommonly bleeding. Radiation proctitis results from progressive epithelial atrophy and fibrosis associated with obliterative endarteritis, chronic mucosal ischemia, submucosal fibrosis, and new vessel formation.

Importance:

Palliative care providers often care for patients with radiation proctitis, therefore being aware of the rational pharmaceutical management is important. Especially as there isn't much literature…

The Literature:

There have been no large controlled trials, therefore pharmacological options are based on case reports and small clinical trials.

- Dig Dis Sci. 1991 Jan;36(1):103-7.
  Radiation-induced proctosigmoiditis. Prospective, randomized, double-blind controlled trial of oral sulfasalazine plus rectal steroids versus rectal sucralfate.
  - Methods: Prospective study of 7 consecutive patients with radiation-induced proctosigmoiditis were randomized to receive a four-week course of either 3.0 g oral sulfasalazine plus 20 mg twice daily rectal prednisolone enemas (group I, N = 18) or 2.0 g twice daily rectal sucralfate enemas plus oral placebo (group II, N = 19)
  - Results: At four weeks, both groups showed significant clinical improvement (P less than 0.01 for group I and P less than 0.001 for group II) and endoscopic healing (P less than 0.01 for group I and P less than 0.001 for group II)

    - When the two groups were compared, sucralfate enemas showed a significantly better response as assessed clinically (P less than 0.05), although endoscopically the response was not statistically different (P greater than 0.05)
- Conclusion: "We conclude that both treatment regimens are effective in the management of radiation proctitis. Sucralfate enemas give a better clinical response, are tolerated better, and because of the lower cost should be the preferred mode of short-term treatment."

- Gastroenterol Clin North Am. 2013 Dec;42(4):913-25.
  Management of radiation proctitis.
  - Review of modalities available for the treatment of acute and chronic radiation proctitis. Because of the paucity of well-controlled, blinded, randomized studies, it is not possible to fully assess the comparative efficacy of the different approaches to management. However, the evidence and rationale for use of the different strategies are presented

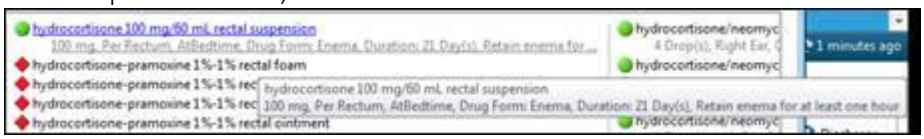
- J Clin Diagn Res. 2016 Jun; 10(6): XE01–XE06.
  Exploring the Management of Radiation Proctitis in Current Clinical Practice
  - Methods: Integrative review
  - Results: Literature suggests that non-surgical therapies are the first line of treatment and surgery is reserved for advanced or refractory cases. Argon plasma coagulation and laser therapies are preferred
    - Anti-inflammatory agents: Sulphasalazine, balsalazide and mesalazine are some of the anti-inflammatory drugs which have been tried in the treatment of radiation proctitis. Overall, the clinical evidence on the role of 5-ASA in the treatment of radiation proctitis is not sufficient to recommend the routine use in radiation injury
    - Antioxidants: Kennedy et al., has found a sustained therapeutic benefit with vitamin E and C in patients of chronic radiation proctitis. Though, benefits seem to occur, more studies are required to establish it's role in the current practice
    - Sucralfate: Sucralfate paste enemas have shown clinical improvement in 23 patients of chronic radiation proctitis, when given twice daily for two weeks. Additional use of metronidazole may enhance this effect of sucralfate
    - Steroid enemas: At present, it is anticipitated that corticosteroid enemas have limited effects on chronic radiation proctopathy
    - Other options include: formalin therapy, sodium butyrate enemas, hyperbaric oxygen therapy (HBOT), pentoxifylline, rebamipide enema therapy, vitamin A, and short chain fatty acid enemas
  - Conclusion: "Though, a number of options are available, still a lot can be explored in this field to improve the morbidity in the patients and to confirm the superiority of one treatment over other."

So… What does this all mean Jenn?

- It appears there is a need for more research in the management of this disease- state
- When needed, hydration and antidiarrheals should be considered
- Overall, below are the available options:

Medication	Dosing	Notes
Glucocorticoid enemas	Hydrocortisone 100mg BID	Could also consider other steroid preparations however the evidence is in hydrocortisone
Sucralfate enema	20mL 10% in water BID	There is also evidence for oral administration and paste enemas

- In select parts of UPMC, we have:



  - I can't imagine pitting 60mLs into someone's rectum but…
- Also as above, where available endoscopic therapy with argon plasma coagulation has been found to be helpful (although we do not have that everywhere in UPMC)

Geriatric Considerations:

- It appears considerations for radiation proctitis are the same for older adults and their younger counterparts
- According to the current literature base age does not increase the risk for radiation proctitis – predisposing factors include preexisting comorbid conditions, tumor stage, total radiation dosage, volume treated, dose distribution and other concurrent therapies

Stay tuned for future PCP Phast Phacts on radiation proctitis!

CLINICAL PEARL:
Glucocorticoid or sucralfate enemas should be considered for radiation proctitis.