Rectal Bleeding Risk Factors in Patients Treated with External Beam Radiation of the Prostate

Presenting Author	Scott Kramer, Bachelor of Science, Medical Student, Radiation Oncology, Tampa Bay Oncology, Largo, Florida
Co-authors	Bansi Savla M.D., Radiation Oncology, Tampa Bay Oncology, Largo, Florida; Eric Rost, M.D., Radiation Oncology, Tampa Bay Oncology, Largo, FL; Nicholas Mason PHD, Radiation Oncology, Tampa Bay Oncology, Largo, FL
Disclosure Information	Authors and Co-authors have no relevant financial relationships to declare.
Supplemental Video	Supplemental Video
Category	Medicine & Medical Subspecialties

Abstract

Background/Knowledge Gap:
Radiation proctitis can occur when the rectum receives large doses of radiation therapy. Newer technologies allow for reduced incidence of these toxicities. Predictors of additional toxicity in this population are not well studied. In this retrospective review, we sought to describe and analyze the presenting clinical features in our cohort and evaluate possible predictors of severity and chronicity in men with radiation proctitis after treatment with IMRT for prostate cancer.

Materials/ Design:
A retrospective cohort study of 383 patients treated with IMRT for prostate cancer between 1/1/2009-11/31/2019 was conducted. Descriptive and multivariate regression analyses were conducted.

Results/Findings:
383 patients were included in our study with a median follow up of 17.6 months. The rate of gastrointestinal comorbidities in all patients including diverticulosis, diverticulitis, hemorrhoids, colon cancer, ulcerative colitis, IBD, was 18.8% (72 patients). Seven percent (27 patients) had anticoagulant therapy and 36% (139 patients) had aspirin therapy during or after radiation therapy. Median follow up after completion of radiation therapy was 17.6 months (range 0.0 – 124.4 months). The overall rate of gastrointestinal bleed was 18.5 % (72 patients). The overall rate of rectal bleed due to radiation proctitis was 4.4% (17 patients). Median months to first episode of rectal bleed after completion of RT was 13.4 months. The rate of patients with Grade 3 radiation proctitis, bleeding/nonbleeding, was 7.5% (29 patients). On multivariate analysis, only presence of gastrointestinal comorbidity was considered statistically significant ($p < 0.01$).

Conclusions/Implications:
In this series, IMRT to the prostate was well tolerated with low rates of Grade 3 radiation proctitis. Time to first episode of rectal bleed was 13.4 months. The presence of additional gastrointestinal comorbidity in this cohort may increase the risk of radiation proctitis. Prospective evaluation and long term follow up to determine how to mitigate rates of radiation proctitis is warranted to improve symptom burden and quality of life outcomes in patients receiving radiation therapy for prostate cancer.

Learning Objectives

- Evaluate potential predictors of radiation proctitis in patients undergoing external beam radiation.
- Measure the risks of radiation proctitis associated with gastrointestinal comorbidities and use of antiplatelet/anticoagulation therapies in patients undergoing external beam radiation.
- Diagnose radiation proctitis early in those patients with significant gastrointestinal comorbidities.