

Hyperbaric Oxygen Therapy for Radiation Induced Proctopathy in Men Treated for Prostate Cancer

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Purpose

Radiation proctitis is a common complication following external beam **radiation** therapy and brachytherapy for prostate cancer. While 95% percent of **radiation** induced **proctitis** is temporary and self-limiting, up to 5% of patients experience toxicities that are refractory to conservative management. **Hyperbaric oxygen** has a well-defined role in treating chronic wounds, osteomyelitis, hemorrhagic cystitis and necrotizing fasciitis. We reviewed our experience with **hyperbaric oxygen** therapy for **radiation** induced **proctitis** in patients undergoing **radiation treatment** for prostate cancer.

Materials and Methods

From October 1998 to December 2003, 27 patients with **radiation** induced **proctitis** secondary to brachytherapy (4), external beam **radiation** therapy (16) or combined modality (7) for prostate cancer were treated with **hyperbaric oxygen** therapy at Virginia Mason Medical Center in Seattle, Washington. In all patients primary medical or endoscopic management had failed. Patients received 100% **oxygen** in a multiplace **hyperbaric** chamber at a pressure of 2.4 atmospheres absolute for 90 minutes 5 to 7 days weekly for an average of 36 sessions (range 29 to 60). Data were collected from a retrospective review of medical records following approval by the Institutional Review Board at Virginia Mason Medical Center.

Results

All 27 men completed the planned course of therapy. Of patients with bleeding 48% showed complete resolution after therapy, while 28% reported significantly fewer bleeding episodes. Of patients 50% noted complete resolution of fecal urgency. Six of the 8 patients (75%) with pain noticed some improvement after therapy, although no patients reported complete resolution of rectal pain. Of patients with rectal ulceration 21% showed complete resolution of the ulcer on posttreatment endoscopy, while 29% showed evidence of improvement. Six patients (43%) had no change or worsening of rectal ulcers. Overall 67% of patients had a partial to good response, while 33% showed no response or disease progression.

Conclusions

This series of patients showed a good overall response rate to **hyperbaric oxygen** for **radiation** induced proctopathy after other attempts at management had failed. **Hyperbaric oxygen** is generally well tolerated and it remains an important **treatment** option for managing this common and difficult disease.

Key Words: rectum; **radiation** therapy; prostatic neoplasms; complications; **proctitis**

Abbreviations: HBO2, **hyperbaric oxygen** therapy; RTOG, **Radiation** Therapy Oncology Group; XRT, external beam **radiation** therapy
Study received approval from the Virginia Mason Medical Center Institutional Review Board.

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