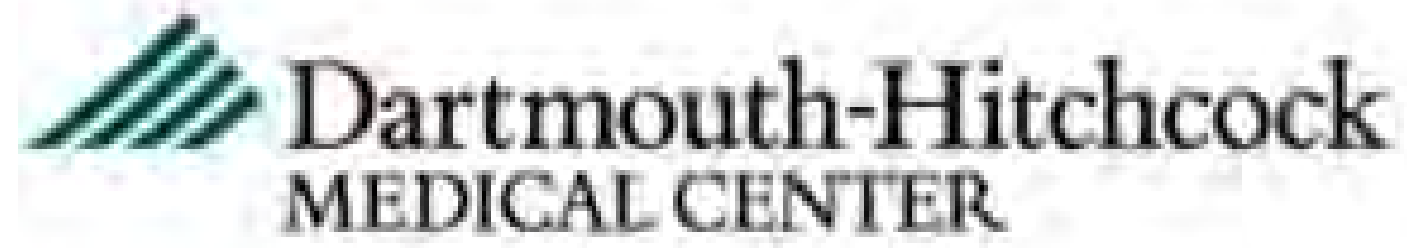


Resolution of Oropharyngeal Fistula in Patient with History of Life-Threatening Bleeding



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Introduction

Soft tissue radionecrosis and osteoradionecrosis are serious complications of radiation therapy which have a significant effect on the patients' morbidity and quality of life. Radiation damage that reaches large blood vessels can be life threatening. Hyperbaric oxygen therapy (HBOT) promotes the growth of new microvasculature to correct tissue hypoxia and promote healing in areas of radiation injury. This may be particularly useful in cases where blood vessels are threatened.

Case Study

This 73-year-old man experienced a serious complication of radiation therapy thirteen years after completing definitive chemoradiation for squamous cell carcinoma of the soft palate. He developed a pseudoaneurysm of the external carotid artery with pyriform sinus fistula extending from the oropharynx to the hyoid bone. As a result, he suffered two episodes of massive hemoptysis and required emergency tracheostomy. The patient underwent intervention to address the bleeding and was referred to Hyperbaric Medicine to assist in healing the fistula.

Methods / Results

- A total of 40 daily HBOT (90 oxygen minutes at 2.0 ATA) were administered in a monoplace chamber.
- During this 8-week period, the patient received no other form of therapy.
- The fistula resolved and his tracheostomy healed closed without surgical intervention.
- The patient reported improvement in his pain level and xerostomia, as well as weight gain.
- Following completion of HBOT, he has had no further bleeding episodes.

Summary

Hyperbaric oxygen therapy can improve the morbidity and quality of life of patients with delayed radiation injury. In this case it was important for preventing further life-threatening bleeding.