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FAST FACTS AND CONCEPTS #130

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Introduction

Radiation and chemotherapy-induced mucositis causes pain, difficulty swallowing, and decreased oral intake. Fast Fact #121 discusses the diagnosis and assessment of mucositis; this Fast Fact focuses on prevention and general treatment of radiation (XRT) and chemotherapy-induced oral mucositis.

Prevention

- Oral care: At least two weeks prior to the start of radiation to the head and neck region, or the use of chemotherapy that is expected to cause severe and prolonged neutropenia (e.g. for acute leukemia), patients should undergo a thorough oral/dental exam with appropriate dental extraction and repair or removal of dental prostheses. Patients should be educated on maintaining good oral hygiene including daily brushing with a soft bristle tooth brush, flossing, use of fluoride plaques, and avoiding denture use. Mouth rinses that contain a mixture of baking soda, salt and water can prevent the build-up of bacterial overgrowth and remove dead cells. Patients should avoid caustic and drying agents: alcoholic beverages, mouth rinses with alcohol, hot beverages, and acidic foods.
- Radiation therapy technique: Advanced radiotherapy techniques such as 3D-conformal therapy and intensity modulated therapy decrease radiation toxicity by limiting doses to the normal oral mucosa. Other modifications of XRT that decrease toxicity include using shields to block normal tissues, decreasing the radiation fraction size and shorter overall treatment time. Severe mucositis may require a 5 to 7 day radiation treatment break to allow for tissue recovery. However, a prolonged break in treatment is associated with inferior local control rates and survival.

Treatment

- Treatment of infection: Prophylactic use of antifungal, antibacterial or antiviral medications does not decrease the incidence of mucositis. However, clinicians should consider potential super-infection, and have a low threshold to obtain cultures, especially for fungal and viral infections. Of note, viral infections such as herpes may not present with classic physical examination findings.
- Pain Management: Local anesthetics such as lidocaine and diphenhydramine are routinely used to relieve pain but do not provide mucosal protection nor hasten recovery. Local anesthetics decrease taste and can impact oral intake. Some patients find addition of carafate slurry or a liquid antacid to a lidocaine/diphenhydramine mixture provides temporary analgesia. Liquid oral or parenteral opioids may be required for adequate pain management (see Fast Fact #185).
- Topical agents: A number of topical agents are available to provide symptomatic relief. These include commercial and non-commercial preparation: Gelclair, topical lidocaine, and various mixtures of lidocaine, Maalox, diphenhydramine and nystatin, etc.

Reference

Berger AM, Kilroy TJ. Oral Complications. In: DeVita V, et al, eds. Cancer: Principles and Practices of Oncology. 6th Edition. Philadelphia, PA: Lippincott Williams & Wilkins; 2001.

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