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Xerostomia: Dry Mouth

Introduction

A distressing, even devastating symptom that gets insufficient attention is xerostomia, or dry mouth. Anything that affects the ability to produce normal saliva can cause xerostomia. These include primary conditions such as Sjogren's syndrome, radiation therapy for head and neck cancer, many common medications such as opioids and anticholinergics, fluid restricted diets, depression, and complication of diseases as diverse as diabetes and AIDS. Some degree of xerostomia is experienced by virtually all patients who receive radiation therapy for head and neck cancers. Chronic xerostomia is experienced by more than half of survivors who have undergone conventional radiation.

Implications

Normal saliva is a critical component of oral health. Most importantly, it helps to clean the teeth and oral cavity, and maintains a chemical balance that prevents plaque, caries, and gingivitis. And, of course, dry mouth can be a very uncomfortable condition. Absence of normal saliva leads to infection, tooth decay, pain, and loss of teeth. These in turn interfere with nutrition, general quality of life, and self-image.

Assessment

The seriousness of the condition ranges from mild hyposalivation to complete absence of saliva production. Fortunately, complete absence is rare. Not all people with reduced saliva production experience the sensation of a dry mouth, so careful assessment for patients at risk (including most elders) is essential. Clinicians tend to drastically under estimate the prevalence of dry mouth; assessment is infrequent and suboptimal. There is no

widely-accepted standard for assessment. Rating scales, patient questionnaires, and measurement of saliva production and viscosity have been used, but there is poor correlation among these tools. Frequent oral examination and quarterly evaluation by a dentist are recommended. Nutritional and psychological assessment and medication review should accompany assessment of oral health.

Intervention

Treatment approaches to induce salivation include acupuncture, electrostimulation, and cholinergic stimulants such as pilocarpine, and “topical stimulation” such as sugarless gum and sugarless hard candies. Secondary prevention of complications is critical. Meticulous oral care during and following treatment includes brushing with fluoride toothpaste, using a fluoride rinse or gel, flossing when possible, and keeping the mouth moist with water or one of the available over-the-counter saliva substitutes. Quarterly dental exams and early intervention for dental problems is strongly recommended. Unfortunately, patient adherence to recommended follow-up and self care practices is generally poor.

Prevention

Radiation oncologists continue to develop techniques to spare the salivary glands, and thus reduce the severity of both acute and chronic xerostomia. In addition, clinical trials have demonstrated that Amifostine is effective at partially protecting healthy tissues, including the salivary glands, from the effects of radiation.

In the News

- Archived issues of [YaleCares](#) are now available on the web on the Yale Cancer Center web site.

- Leslie Blatt APRN, BC-PCM has joined the YNHH staff as the Advanced Practice Palliative Care Nurse. She and Lawrence Solomon, MD may be consulted for pain and palliative care issues.
- Didi Loseth, APRN, MSN, former Pain and Palliative Care nurse at Yale-New Haven Cancer Center has been awarded the Distinguished Service Award at the annual meeting of the Alliance of State Pain Initiatives. Didi is now with the Cancer Pain and Palliative Care Service at the James Cancer Center in Ohio.
- The [National Academy of Sciences](#) has a news feature called Science in the Headlines. A recent article, [Growing Field of Medicine Coordinates Care for Chronically Ill](#), highlights palliative care and links it to related National Academies reports over the past several years.

Journal Watch

- Reese DJ et al. The Social Work Assessment Tool (SWAT). *Journal of Social Work in End-Of-Life & Palliative Care*. 2006;2(2):65-95.
- A recent [supplement](#) (2007;12(Supp1) to [The Oncologist](#) is devoted to the topic of cancer-related fatigue. Open access.
- The [June 10 issue](#) of the [Journal of Clinical Oncology](#) has several articles related to palliative and supportive care.
- The [June issue](#) of [ONS Connect](#) has a cover story and features on childhood cancer survivors. A childhood cancer survivorship clinic is described. For information on the HEROS clinic at Yale Cancer Center, click [here](#).
- Claessens P, et al. [Palliative Sedation and Nursing: The Place of Palliative Sedation Within Palliative Nursing Care](#). *Journal of Hospice and Palliative Nursing*. 2007;9(2):100-106. Free full text available on [Medscape](#). Other selected articles from past issues of this journal are also available.

Connecticut Challenge

The 3rd Annual [Connecticut Challenge](#) will be July 28 in Fairfield. This fund-raising bicycle ride is the major source of support for the [Cancer Survivorship Clinic](#) at the [Yale Cancer Center](#). Riders, [volunteers](#) for the day

of the ride, and [donors](#) are needed. Several ride opportunities for all age and fitness levels are available: 12, 25, 50, and 100 miles. Check the web site for details or to sign up.

Resources on the Web

- [Creating a Survivorship Care Plan for Women with Breast Cancer](#). Medscape
- [Talking Cancer](#): A new online discussion board (based in the UK) for people with cancer.
- [Pain and Palliative Care Reporter](#): “a public resource of general information on the legal aspects of pain management and end-of-life care in the United States.” From the Project on Palliative Care Law of the [Bazelon Center for Mental Health Law](#)
- [Cancer Pain Management in Children](#). Texas Children’s Cancer Center.
- Music therapy and advanced illness:
 - [Threshold Choir](#)
 - [The Chalice of Repose Project](#)

Palliative Care Calendar & CE Connecticut

The Connecticut Coalition of End-of-Life Nurse Educators has scheduled four offerings for 2007 based on the End-of-Life Nursing Education Consortium (ELNEC) curriculum. Open to all clinicians; CNE’s available. Contact: Pat Trotta, (203)379-4763; patricia.trotta@cancer.org.

- Sep 15, 8:30am – 12:30pm. Pain & Symptom Management. Hartford Hospital
- November 10. Cultural and Ethical Issues at End of Life. UConn Medical Center, Farmington.

Elsewhere

- Oct 12-14. Cambridge, MA. [Practical Aspects of Palliative Medicine: Integrating Palliative Care into Clinical Practice](#)

Xerostomia References

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