Xerostomia and quality of life

Chronic dry mouth affects a substantial proportion of the population. Xerostomia is defined as the *subjective* feeling, or perception, of dryness in the mouth, and is assessed by self-reports of individuals reporting symptoms (1). Xerostomia has been shown to be a significant health issue in elderly populations, especially, when associated with reduced salivary function (1). Chronic dry mouth affects the day-to-day lives of older people living in institutions, and xerostomia is often thought to be a characteristic of old age. It affects the ability to chew, swallow, speak, etc.

That being said, numerous studies have shown a lack of relation between xerostomia and actual decreased salivary flow or hyposalivation (salivary gland hypofunction, SGH). In cases where xerostomia is accompanied by SGH or where SGH is found without xerostomia, substantial oral health problems may result if preventive measures are not taken. Reasons for the lack of association between xerostomia and hyposalivation are not clear, but may relate to changes in the constituents, rather than the quantity of saliva, or other multifaceted physiological factors.

Saliva serves several functions in the mouth. Saliva reduces the number of micro-organisms in the mouth (2). It is also necessary for effective remineralization of tooth enamel (3). Salivary flow and its components, such as amylase, start the digestion of foods and help dissolve and remove food particles from the mouth. Saliva also lubricates the mucosal lining of the mouth, facilitating speech, eating and swallowing as well as preventing mechanical damage to the surfaces of the oral cavity. Salivary components, including some glycoproteins and enzymes, have antibacterial, antifungal and antiviral properties (4). A significantly diminished salivary flow makes communication, speech, nutrition, digestion, chewing, swallowing and sleep difficult, and may radically increase the risk of rampant caries. This is most often seen in patients with permanent salivary gland destruction, such as those with Sjögren's syndrome or those that have had radiation treatment for head and neck cancers. It may also occur in those with temporary, but significant periods of dry mouth, such as during bouts with chemotherapy or eating disorders.

A recent study discovered unexpectedly that 10% of people in their early thirties are affected with xerostomia (5). It was then questioned whether dry mouth is a trivial condition, easily remedied, or one that could negatively affect quality of life among younger people. The objective of this particular study was to examine the association between xerostomia and oral health-related quality of life (OHRQoL) among young adults while controlling for clinical oral health status and other possible confounding factors (5).

Xerostomia can be diagnosed by SGH that results in decreased salivary output and established by sialometry (6). Many prescribed and over-the-counter medications are risk factors for dry mouth (7). While dry mouth has been reported to affect important aspects of life, such as speaking, the enjoyment and ingestion of food, and the comfortable use of dental prostheses, only recently has its relationship with OHRQoL been investigated (8). Xerostomia was found to be strongly associated with OHRQoL in institutionalized older people in one study and a Swedish study of dry mouth and OHRQoL in institutionalized older people found similar links (9, 10). While these results imply that the impact of dry mouth affects more than the oral cavity, to include individual's everyday lives, there is a need for further study.

The take-home message here is that, with the demand for oral health care increasing, resources declining, and the practice of evidence-based patient-centred care on the rise, attention to OHRQoL is something that merits awareness. Prevention of dry mouth should be foremost, and treatment utilized as needed. The conclusion of this study was that xerostomia is not a minor condition, and seems to have discernible and often times daily effects on those with the condition, whether young or old. Dental hygienists are in a unique position to not only provide excellent oral care, but also increase the overall quality of life of patients.

There are many things one can do, and products they can use, to help alleviate the symptoms of dry mouth and thus, increase the quality of life of patients.

Our suggestions to patients include:

- increase fluid intake;
- take frequent sips of water or suck on ice chips;
- use artificial saliva, saliva substitutes, or saliva stimulants;
- use antixerostomia dentifrices or rinses;

- use prescription medications that can increase saliva production;
- chew sugarless gum;
- use a humidifier while sleeping;
- practice excellent oral hygiene to minimize caries and periodontal disease, including:
  (i) fluoride rinses or gels;
  (ii) chlorhexidine rinses;
- avoid use of tobacco;
- avoid citrus juices;
- avoid dry foods;
- decrease ingestion of caffeine, alcohol and carbonated beverages.

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