

ORAL ASPECTS OF SJOGREN'S SYNDROME

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The Role of Saliva

Day in and day out, the salivary glands are busy pouring saliva into the mouth. It has been estimated that approximately one to one and a half liters of saliva are produced by our salivary glands daily. This large volume of fluid does not go to waste—it is recycled by swallowing. Studies have shown that the accumulation of less than 1.5 ml saliva triggers a swallowing reflex.

Each time we swallow, all of the debris, bacteria and loose cells are eliminated from the mouth. This process provides a continuous “flushing” system keeping the mouth healthy and clean. Saliva plays a significant role in protecting the oral cavity. It also provides lubrication necessary for speech, chewing and swallowing. In addition, saliva contains antimicrobial substances that prevent the overgrowth of the common oral microorganisms and reduce the incidence of dental caries. If the amount of salivary production is reduced, the mouth becomes vulnerable to dental decay and infection by opportunistic microorganisms.

Dry Mouth: Clinical Signs and Symptoms

Dry mouth (xerostomia) is a subjective feeling associated with reduced salivary output and is a common problem in Sjogren's syndrome. The “cracker” test is a simple method of testing for dry mouth. A person with diminished salivary production will have difficulty chewing and swallowing dry food, such as a cracker.

Signs and symptoms of xerostomia vary with the severity of the condition. Xerostomia is frequently associated with a burning sensation in the mouth, increased dental caries, sore mouth, coated tongue, difficulty with denture retention, difficulty with chewing, swallowing and affected speech (Tables 1 & 2).

Table 1. Symptoms of Xerostomia

1. dry mouth
2. sore mouth
3. burning mouth
4. change in taste
5. difficulty in eating
6. difficulty in chewing
7. difficulty in swallowing
8. persistent need for fluids
9. difficulty with denture retention

Table 2. Signs of Xerostomia

1. inflammation of the oral mucosa
2. increased incidence of dental caries
3. recurrent yeast infections
4. recurrent salivary gland swelling

Dry mouth may be manifested by increased plaque accumulation and an increased need for frequent dental prophylaxis. The teeth may appear hypocalcified or badly decayed at the gum line. Cavities of this nature are termed cervical tooth caries or, more frequently, “amputation caries,” as fracture of the tooth at the gum line or “neck of the tooth” may result. Tooth decay in individuals with xerostomia develops and progresses rapidly.

The tongue of a dry mouth patient may appear smooth, swollen, red and inflamed. This usually is associated with a severe burning feeling that may interfere with normal eating and drinking. Recurrent oral yeast infections may also appear as a “coated” tongue.

Scarring and marks of cheek biting are a common finding in xerostomic patients. In the absence of salivary lubrication that assists in sliding the oral tissues against each other, the cheeks tend to stick to the teeth and get trapped between the upper and lower teeth during chewing.

Swelling of the salivary glands, and dry and cracked lips are not uncommon findings in people with Sjogren’s syndrome.

Management of Xerostomia

Individuals suffering from xerostomia are more susceptible to extensive dental caries, periodontal (gum) diseases and to bacterial and yeast infection, due to the loss of the protective functions of saliva (Table 3). Therefore, frequent dental visits and special home dental care, flossing and brushing after each snack and meal is extremely important. Avoiding sugary snacks and daily use of fluoride gel are necessary measures to control the development and progression of dental caries. Yeast infections can be controlled by antifungal medications.

Table 3. Treatment Goals

1. Relieve oral dryness
2. prevent dental caries
3. treat yeast infection
4. monitor disease progression

Management of xerostomia, in most cases, is palliative and directed to relieving discomfort. Salivary substitutes can be helpful in some cases. Increasing fluid intake is recommended as well as using salivary stimulants, such as sugarless chewing gum and sugarless candies to stimulate the salivary output. However, sour lemon drops and citric acid juices are not recommended generally for patients with natural teeth because of the potential demineralizing (softening) effect on the teeth. Excessive use of citrus hard candies may also have the potential of irritating the dry oral mucosa. Frequent dental consultations and topical fluoride applications are necessary for the management of dental problems.