Banishing oral ulcers

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If you are prepared for those panicked phone calls from patients about oral ulcers, you can really be a hero.

Kathryn Gilliam, RDH, BA

How many times has a patient phoned you in a panic because he has a mouthful of painful ulcers and is due to give a presentation to the company's chairman of the board in an hour? Or maybe you've had a bride call the day before the ceremony with a weeping cold sore on her lip. What can you do? Your patients count on you to relieve their pain and eliminate the embarrassing sores that appear at the most inopportune times. You'd love nothing more than to be a hero with the magic cure, but all too often our solutions to patients' problems fall short of expectations. Now you have new treatments that allow you to be a hero for those many patients who suffer from oral ulcers.

Recurrent herpes labialis

There are two basic categories of oral ulcers: extraoral and intraoral. The most common extraoral ulcers are recurrent herpes labialis, HSV-1, or cold sores and fever blisters as they are commonly called. These ulcers commonly occur on the lips, chin, cheeks, and nostrils. They can appear intraorally on nonmoveable tissues such as the gums and hard palate as well. Approximately 80 percent of the population experiences outbreaks of recurrent herpes labialis. HSV-1 is extremely contagious when lesions are present and can be communicable even without obvious lesions. As dental professionals, we must be aware that 10 percent of patients shed the virus asymptomatically. Universal precautions are the only way to protect ourselves from inoculation.

We must educate patients that what they call a cold sore or fever blister is actually an incurable and extremely contagious disease. This will help them be more cautious about touching the lesions. Hundreds of people every year self-inoculate and spread the lesions to other body parts. Particularly devastating is the introduction of the virus to the eye,

resulting in blindness. Countless people are infected by contact with an infected person who is either symptomatic or asymptomatic. This has caused a virtual epidemic of HSV-1 in this country.

Herpes lesions are not caused by exposure to germs, unlike other types of infections. They are the result of a reactivation of a dormant virus living in the trigeminal nerve ganglions of the face following a primary infection. The primary infection, called primary herpetic stomatitis, usually occurs in very young childhood. The symptoms are flu-like, with clusters of tiny gray blisters throughout the mouth. The symptoms for primary herpetic stomatitis can be subclinical, so many people have no recollection of this event.

During active periods, the virus travels along the nerve to the location where the lesion develops. Outbreaks of HSV-1 are triggered by such factors as emotional stress, fever, illness, fatigue, immune deficiency syndrome, common cold, infection, injury to the mouth, exposure to sunlight, hormonal changes like pregnancy or menstruation, wind burn, skin trauma, excessive heat, and food allergies. Herpes lesions are very painful and typically last between eight and 10 days.

There is a set pattern of development of HSV-1:

• **Day 1-2: Prodromal Stage —** At this point the patient will notice a tingling or burning sensation beneath the skin with possible redness and swelling. Be aware that 25 percent of the population infected with HSV-1 does not feel *any* sensation during this stage.

• **Day 2-3: Blister Stage —** An outbreak of fluid-filled blister(s) the size of a nickel will form.

• **Day 4: Weeping Stage —** At this stage the blister ruptures leaving a shallow reddish ulceration. This is the most painful and the most contagious stage.

• **Day 5-8: Crusting Stage —** Blisters dry and leave a yellow or brownish crust. During this stage it is important to care for the scab so it will not crack. If it does, bleeding will occur.

• **Day 9 -12: Healing Stage —** A series of scabs form on the lesion and eventually flake off. Each subsequent scab will be smaller than the previous scab. Healing occurs without scar formation.

Treatment of herpetic lesions

There is no known cure for the herpes virus. There are no standard protocols, but many products and medications are available with varying efficacy. The vast majority of herpes labialis outbreaks are triggered by exposure to ultraviolet light, so a recommendation of sunscreen and lip balm with sunscreen is imperative.

Systemic prescription products, such as Famvir (Famcyclovir) and Valtrex (Valcyclovir), rely on nucleosides to interrupt the reproductive cycle of the herpes virus. To do so they must change the DNA being produced in the cells. Patients have expressed concern about the long-term consequences of repeated exposure to nucleoside drugs. Topical prescription creams, such as Zovirax Cream (Acyclovir) and Denavir Cream (Pencyclovir), require multiple applications over four to five days to be effective.

Over-the-counter remedies are generally palliative in nature. They relieve the symptoms, inhibit the continued development of the lesion, and promote healing. OTC remedies generally require multiple applications. Numbing agents include Campho-phenique (bayer.com) and Orajel MouthAid (orajel.com). Agents that limit sore formation include Herpecin-L (chatteminic.com), Pure Lip Solution Pack (zinc), and Tannic Acid. Moisturizers include Abreva (Allotonin) (smithklinebeecham.com) and Carmex (petrolatum) (carmalab.com).

Tea tree oil is an herbal remedy for HSV-1, and nutritional supplements include Herpetrol Tablets (Alva-Amco.com) and Vir-L-Lysine (lysine). Some people report relief from a diet high in lysine (brewer's yeast, legumes, wheat germ, fish, meat, and dairy) and low in arginine (chocolate, peanuts, and almonds). Home remedies include ice, tea bags (tannic acid), and petroleum jelly. Patients have experienced frustration at having tried so many different treatments with little or no real success.

With all of the topical treatments mentioned, the majority of patients apply the cream to the lesion with a fingertip. Regardless of instructions to wash hands thoroughly following application, how many times have you witnessed a patient rubbing his or her hands together to rub off the excess cream because it's inconvenient to go to the restroom to wash? It's a miracle these people aren't absolutely covered in lesions.

One of the greatest features of Viroxyn (Quadex Pharmaceuticals) (viroxyn.com) is the patented applicator, which eliminates a patient's contact with the product and the lesion, thus eliminating the spread of the virus. Viroxyn is a very different approach to treating HSV-1. Viroxyn uses 0.13 percent Benzalkonium Chloride as a topical germicide to disrupt the lipid coating of the herpes virus, destroying it on contact. The single-dose treatment has shown remarkable results in relieving the pain and shortening the

duration of outbreaks from 10 days to three or four days. If treatment begins at the first tingling of the Prodromal stage, often an outbreak can be completely averted. The product is effective at any stage of the outbreak, so if a patient comes to you with a full-blown case of multiple lesions, you can be confident that Viroxyn can help. In this case, sometimes a second or even third application may be necessary. Viroxyn is a clear liquid that makes it more discreet than the other topical treatments, which are white creams. This product is not widely recognized or recommended, but Viroxyn has proven beneficial to thousands of herpes sufferers.

Aphthous ulcers

The most common intraoral lesions are recurrent aphthous ulcers, sometimes called canker sores. Aphthous ulcers affect approximately 80 percent of the population. There is no known cure for aphthous ulcers, and most affected people suffer recurrent outbreaks, some monthly. Some people are never without an aphthous ulcer. These ulcers are often very painful and can impede speaking, eating, and drinking.

Aphthous ulcers are usually found on moveable parts of the mouth, such as the tongue or buccal and labial mucosa. They sometimes occur on the soft palate and the floor of the mouth. Aphthae do not appear on the gingiva or hard palate.

Aphthous ulcers appear as small, oval or round red swellings. They typically burst in a day and the ruptured sores are then covered by a thin, gray, white, or yellow membrane surrounded by a red halo. The lesions usually heal in seven to 10 days; however, some ulcers last for six weeks.

Aphthous ulcers are thought to be caused by a reaction in the immune system to an unrecognized substance. Many factors can trigger this reaction. Some of the most common triggers are Sodium Lauryl Sulfate (SLS), nutritional deficiencies, allergic reactions or sensitivities to certain foods, mechanical trauma, hormonal changes, medications, and bacterial or viral attacks.

SLS is a foaming agent in most toothpaste and mouthwash formulas. SLS can cause sloughing of the oral mucosal tissues, which results in the tissues being more susceptible to other oral irritants. People who are sensitive to SLS can find relief in oral care products that do not contain SLS, such as Oxyfresh toothpaste and mouthwash (Oxyfresh.com), Biotene Dry Mouth Toothpaste (Laclede), CloSYS II (rowpar.com), Orajel Dry Mouth Toothpaste (Del Pharm), Sensodyne (SLS-free, TC and anticavity cool gel), Tooth and Gum Paste (Dental Herb Company), PreviDent Gel 1.1% (Colgate), TheraBreath (therabreath.com), Rembrandt Extra Whitening Formula for Cold Sore Sufferers (Oral B), and Squiggle Enamel Saver Mouth Friendly Toothpaste.

A lack of certain nutrients can result in an outbreak of aphthous ulcers, thus a total approach to nutrition is beneficial. A deficiency in vitamins B1, B2, B6, B12, and C, as well as zinc, folic acid, iron, selenium, and calcium, are all cited as potential triggers of aphthae.

Certain foods can trigger an outbreak as well. Fruits and vegetables have been implicated, including tomatoes, lemons, oranges, figs, strawberries, apples, and pineapples. Cereal grains can also be allergens. Oats, rye, barley, and buckwheat have all been implicated, as have chocolate, nuts, soy, and shellfish. Instruct patients to use an elimination-and-challenge diet to sleuth out any food triggers of their oral ulcers. During an outbreak, patients should avoid hard, crunchy, abrasive, hot, spicy, and acidic foods and beverages.

Trauma from dental work, broken teeth or restorations, and cheek bites and scrapes from hard foods such as chips can all precipitate an aphthous ulcer.

Many medications have been linked to outbreaks of aphthae. These include NSAIDS, chemotherapeutic agents, and beta-blockers.

Medical conditions can also provoke outbreaks of aphthous ulcers. Patients with HIV/Aids are known to suffer recurrent aphthous ulcers. People with diabetes, ulcerative colitis, and Crohn's disease are also prone to aphthae. Stress, hormonal changes, genetics, and bacterial and viral agents have all been linked to aphthous ulcers.

Treatment of aphthous ulcers

There is a vast array of products available to treat aphthous ulcers with varying results. One of the newer agents on the market is Debacterol (Northern Research Laboratories) (debacterol.com). Debacterol is a semi-viscous topical liquid chemical cautery agent. It treats aphthous ulcers by sealing damaged mucosal tissues and aiding the natural healing process by debridement of necrotizing tissues, stopping pain within seconds. Healing time is reduced dramatically.

Prescription medications act as either anti-inflammatory agents or collagenase-inhibiting agents. Apthasol (amlexanox), Kenalog in Orabase (triamcinolone acetonide), Synthetic Corticosteroid, Lidex (flucinonide) Diprolene (betamethasone), and Temovate (clobestasol) are all anti-inflammatory agents.

Collagenase-inhibiting medications include tetracycline and chlorhexidine gluconate. It is recommended that the pharmacy compound the chlorhexidine gluconate in water rather than using commercially available chlorhexidine products that contain alcohol.

Numbing agents include OraBase B (colgateprofessional.com) and Orajel (Orajel.com). UlcerEase is a pleasant-tasting liquid anesthetic agent used to numb, buffer, and cleanse canker sores.

Barrier products coat and protect the ulcer from continued irritation. Barriers include OraDisc, a mucoadhesive patch, Ora-film (Apothecus Pharm), Canker Cover (Quantum Health), Rincinol (Sunstar Butler), Soothe and Seal (colgateprofessional.com), Zilactin (Zila.com), and ORA5 Liquid (saveyoursmile.com).

The cleansing agents Peroxyl Oral Rinse (colagateprofessional.com) and Glyoxide (gsk.com) have also been used to ease discomfort and heal aphthous ulcers.

The home remedy mixture of one teaspoon of Milk of Magnesia and one teaspoon of Benadryl liquid is swished and expectorated four to six times a day to help minimize the pain of aphthous ulcers. Natural honey is another home remedy that has found favor among canker sore sufferers due to its antibacterial and antiviral properties.

Now that you're armed with the latest information on products and protocols available to treat the most common oral ulcers, you're prepared for those panicked phone calls and you can really be a hero to your patients.

Kathryn Gilliam, RDH, BA, is a practicing clinical hygienist, a dental hygiene coach, speaker, and writer. To contact Kathryn with questions, comments, or to schedule a speaking engagement or coaching: kathryn@periolinks.com.

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Kathryn Gilliam, BA, RDH, FAAOSH
Kathryn Gilliam, BA, RDH, FAAOSH, is a regular contributing author to Today's RDH and many other publications. Kathryn is a proponent of incorporating the latest scientific research on the multiple oral – systemic links into practical clinical protocols. She is a well-recognized speaker, dental practice consultant, and practicing clinician. Kathryn can be reached for comments or questions at Kathryn@PerioLinks.com.