

Treating Oral Ulcers

Do patients make you feel helpless about treating cold sores? New treatment strategies can minimize their declarations that your advice "didn't help much."

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I can't count the number of times I've recommended various over-the-counter and prescription treatments for oral ulcers, only to hear later from the patient that it didn't really help much.

Patients with recurring oral ulcers are a part of dental practice life. In the past, our ability to relieve pain quickly and effectively was limited. Patients are used to trying all sorts of creams and pills with minimal success. Professionals are often confused and frustrated by the lack of truly effective treatments. Today, we have more options and a greater possibility to be real heroes for our patients. In this article, we will discuss the new products and techniques available to provide real relief to a painful problem.

In order to be able to manage outbreaks of oral ulcerations, one must be able to identify the most common types of oral lesions and their most common causes. The two most common oral lesions that affect the general public are recurrent minor aphthous ulcers (canker sores) and herpetic oral lesions (cold sores or fever blisters).

Aphthous ulcers

Recurrent aphthous stomatitis affects approximately 80 percent of the population. They occur most commonly in women, starting between 10 and 20 years old. There is no known cure for aphthous ulcers and most people suffer recurrent outbreaks; some monthly, and some people are never without an ulcer.

Aphthous ulcers are usually found on movable 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 a thin gray, white or yellow membrane, edged by a red halo, then covers the ruptured sores. The lesions are usually very painful and heal within seven to 10 days.

The ulcer is thought to be caused by a reaction in the person's immune system to an unrecognized substance. Many factors can trigger this reaction. Some of the most common factors are sodium lauryl sulfate (SLS), nutritional deficiencies, allergic reactions or sensitivities to certain foods, mechanical trauma, hormonal changes, medications and bacterial or viral attacks.

Sodium lauryl sulfate, or SLS, is a foaming agent in most toothpaste and mouthwash formulas. SLS can cause sloughing of oral mucosal tissues. Oral mucosa can become more susceptible to other oral irritants because of the drying effect SLS has on the tissues. People who are sensitive to SLS can find relief in oral care products that are made without this substance. Rowpar Pharmaceuticals (www.rowpar.com) produces CloSYSII brand, which does not contain SLS. Other brands that do not contain SLS include:

- Tom's of Maine, www.tomsofmaine.com
- Oxyfresh www.oxyfresh.com
- BreathRx www.discusdental.com
- TheraBreath products, www.therabreath.com
- Rembrandt Extra Whitening Formula for Cold Sore Sufferers (Oral-B)
- Squiggle Enamel Saver toothpaste.

A lack of specific nutrients can lead to aphthae; therefore, a total approach to nutrition is beneficial in controlling oral ulcers. 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 aphthous ulcers.

Certain foods can also trigger an outbreak. 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 cited, as have nuts, chocolate, soy and shellfish.

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

Many medications have been linked to outbreaks of oral ulcers. They include NSAIDS (Non-steroidal anti-inflammatory drugs), chemotherapeutic agents, and beta-blockers.

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

Treatment of aphthous ulcers

Treatments can vary from herbal and home remedies to over-the-counter preparations to prescription creams and gels.

One recent product that has proven very effective is Debacterol, introduced by Northern Research Laboratories (debacterol.com). It is a semi-viscous topical liquid chemical cautery agent. Debacterol 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. Anti-inflammatory medications include Apthasol (amlexanox), Kenalog in Orabase (triamcinolone acetonide), synthetic corticosteroid, Lidex (fluocinonide), Diprolene (betamethasone), and Temovate (clobetasol). Gel treatments work best in the mouth. Creams wash away quickly and ointments can stick to fingers or applicators more than they stick to the ulcer.

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

Numbing agents available include Orabase B (www.colgate.com) and Orajel (www.orajel.com). UlcerEase is a pleasant tasting liquid anesthetic agent used to numb, buffer, and cleanse canker sores (www.coldsoregone.com). Copper sulfate and iodine have been used as antibacterial agents to treat aphthous ulcers.

Barrier products coat and protect the ulcer from further irritation. Sunstar Butler has introduced Rincinol P.R.N., (www.jbutler.com), the first nonprescription rinse for oral pain relief that forms a bio-adherent protective coating over the mucosal surface to quickly provide long-lasting pain relief without numbing, stinging, or burning. Rincinol P.R.N. is pleasant tasting and easy to use. A simple swish treats the area without the added need to touch an applicator to an already painful ulcer. This is especially helpful for children ages 6 and above with ulcers.

Other barrier products include Colgate's Orabase Soothe-N-Seal, Zilactin by Zila Pharmaceuticals (www.zila.com), and ORA5 (www.ora5.com).

The cleansing agents Peroxyl Oral Rinse (Colgate Professional) and Gly-Oxide (www.gsk.com) have also been used to ease the discomfort and help heal oral ulcers.

The home remedy mixture of one teaspoon milk of magnesia and one teaspoon Benadryl liquid is swished and expectorated four to six times a day to help minimize the pain of oral ulcers.

Instruct patients to use an elimination and challenge diet to try to sleuth out any food triggers of their oral ulcers. They should also avoid hard, crunchy, abrasive, hot, spicy, and acidic foods and drinks while they have an outbreak.

Recurrent herpes labialis

"Cold sore" and "fever blister" are common terms used for the recurrent herpes labialis lesions caused by the herpes simplex virus (HSV1) that usually occur outside the mouth on the lips, chin, cheeks or nostrils. They can appear intraorally on nonmovable tissues such as the gingivae or hard palate. Approximately 80 percent of the population experience outbreaks of recurrent herpes labialis. HSV1 is extremely contagious when lesions are present. These lesions are painful and typically last between eight to 10 days.

Cold sores, unlike other types of infections, are not caused by exposure to germs. They are a result of a reactivation of a dormant virus living in the trigeminal nerve ganglions of the face as a result of a primary infection.

The primary infection, called primary herpetic stomatitis, usually occurs in very early childhood. The symptoms are flu-like, with clusters of tiny gray blisters throughout the mouth. Most people do not remember this primary infection, as symptoms can be subclinical.

During active periods, the virus travels down the nerve to the location where the lesion develops. Outbreaks of cold sores 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 such as menstruation or pregnancy, wind burn, skin trauma, excessive heat, and food allergies.

Cold sores follow a set pattern of development:

- **Days 1 to 2: prodromal stage** — At this stage, the patient will notice a tingling or burning sensation beneath the skin, with possible redness and swelling.
- **Days 2 to 3: blister stage** — An outbreak of fluid-filled blisters the size of a nickel will form.
- **Day 4: weeping stage** — At this stage, the blisters rupture, leaving a shallow reddish ulceration. This is the most painful and the most contagious stage.
- **Days 5 to 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.
- **Days 9 to 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 treatment protocols but many products and medications have been tried, with varying results.

Over-the-counter remedies are palliative in nature. They relieve the symptoms, inhibit the continued development of the lesion, promote healing, or possess properties that interfere with the development of the cold sore. OTC remedies require multiple applications. Numbing agents include Campho-Phenique (www.bayercare.com) and Orajel MouthAid. Those agents that limit sore formation include Herpecin-L (www.chattem.com), Pure Lip Solution Pack (www.purelip.com, zinc), and tannic acid.

Moisturizers include Abreva (allotonin; www.abreva.com) and Carmex (petrolatum; www.carma-lab.com).

Herbal remedies include tea tree oil and nutritional supplements such as Herpetrol tablets (www.alva-amco.com) and VIR-L-Lysine (lysine). Some people have found relief from a diet high in lysine and low in arginine. In vitro studies have found that the amino acid arginine is required by the herpes virus to replicate. Since lysine competes with arginine for intestinal transport, a diet rich in lysine (brewer's yeast, legumes, wheat germ, fish, meat and dairy) and low in arginine (chocolate, peanuts, and almonds) may have an antiviral effect.

Home remedies include ice, tea bags (tannic acid) and petroleum jelly. Many patients have expressed frustration at having tried so many different over-the-counter, herbal, and home remedies with little or no success.

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.

An exciting new approach to treating cold sores, Viroxyn (Quadex Pharmaceuticals), uses 0.13 percent benzalkonium chloride to disrupt the lipid coating of the virus and kill it on contact. This single-dose topical treatment has shown remarkable results in relieving the pain and shortening the duration of outbreaks from 10 days to three to four days. Patients are encouraged to apply Viroxyn (www.coldsoregone.com) at the prodromal stage, when they first notice the tingling or burning. Often, they can prevent the cold sore from erupting at all if it's caught early enough. Viroxyn is effective even on the mature virus, so treatment is beneficial and effective at any stage of the outbreak. A great benefit of Viroxyn is the patented applicator that enables one to apply the medication without ever touching the lesion.

Advise patients to avoid touching the lesion and to avoid kissing anyone while they have an active outbreak. Many sufferers don't realize that a "cold sore" is the same as herpes and is therefore very contagious. Many patients self-inoculate and spread the virus to other parts of their own body by not being careful to wash their hands after touching the lesion.

Patients should also be advised to limit sun exposure and to use sunscreens and lip balms containing sunscreen. Tell patients to replace their toothbrush after an outbreak and to use disposable razors during an outbreak.

Now that you're armed with the latest information on new products and protocols available to treat some of the most common oral ulcers, you can feel great about being able to finally really help your patients feel better and look better fast.

Did you know

- One in five people regularly get canker sores.
- Canker sores are also known as mouth ulcers, aphthous stomatitis and ulcerative stomatitis — all of which are small painful ulcerations that have yellow-gray centers and a red border.

- The cause of canker sores is uncertain; however, associations with human herpes virus 6, food sensitivities, stress, and nutrient deficiencies have been suggested.
- Left untreated, canker sores generally take 1-2 weeks to heal and may recur monthly or several times per year.
- Canker sore treatments have been around for thousands of years. Ancient Egyptians used myrrh as a mouthwash to treat various types of mouth and gum ailments, including sore gums, bad breath, and canker sores.
- American Indians and early settlers alike used cankerroot as a tea to treat both sore throat and canker sores. They chewed raw root to relieve the pain of canker sores and fever blisters. Cherokee Indians also used wild geranium as an astringent to stop the bleeding of open wounds and as a rinse to treat canker sores.

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