Recurrent Aphthous Ulceration

Recurrent aphthous ulceration is the most prevalent oral mucosal disease effecting approximately 20% of the population. The condition presents itself as one or more painful, recurrent, small round or ovoid ulcers with circumscribed margins having yellow or gray floors and is surrounded by erythematous halos. These ulcers are classified as either Minor RAU, the most common variant occurring in about 80% of the cases, and Major RAU or Sutton’s disease. Minor RAU is characterized by lesions of 8 to 10mm seen in nonkeratinized mucosal surfaces which heal in 10 to 14 days without scarring. Major RAU ulcers exceed 1cm, last up to 6 weeks and leave scars. Both forms cause the patient considerable pain, interfering with swallowing, eating and talking.

There is no clear cause of RAU. There are numerous predisposing factors though. These include genetics, trauma, certain drugs, hematinic deficiencies, stress, and hormonal changes. There are various microorganisms such as oral streptococci and helicobacter pylori that may be involved as well as viruses but there are, as yet, no clear indication as to the main casual factor. Oddly, tobacco use seems to inhibit the occurrence of RAU. This may be caused by increased mucosal keratinization or production of adrenal steroids. The drugs most often associated with
RAU include captopril, gold salts, nicorandil, phenindone, phenobarbital and sodium hypochloride. Some NSAIDS, such as propionic acid, diclofenac and piroxicam may cause ulcerations similar to RAU.

While the condition is not, in itself, life threatening, it can mask conditions that are. Oral cancer often resembles RAU. Definitive diagnosis requires such tools and MRI or biopsy but any lesions that do not heal in the normal times for either minor or major RAU should be investigated.

There is no definitive cure for RAU. Treatment is administered both systemically and topically. Steroids, applied topically, is the most common and effective treatment. If there is doubt as to the diagnosis as RAU topical or systemic tetracycline is often administered. The healing time for the ulcers will be reduced since the bacterial growth in the sore will be stopped.

Recent research has tested the effectiveness of some new topical drugs. Among them are allicin (diallyl thiosulfinate), which is derived from garlic, and was administered as adhesive tablets in a Chinese study. Garlic has been used in Chinese ‘folk medicine’ to treat RAU. This led the team to investigate its active agent in a double blind test involving 96 subjects. The results showed a significant decrease in both pain and duration of RAU. As an aside, it was noted that the placebos, also adhesive tablets, show positive results as well. Their supposition is that covering the ulcers alone has a positive effect. Another study evaluated the use of aloe vera gel as a treatment. A double blind test involving 40 subjects showed that this gel was able to reduce pain, swelling and the duration of ulceration. Other drugs such as clobetasol propionate
and amlexanox have also been evaluated with positive results in limited studies. While all of these proposed treatments show promise, large population studies are yet to be done.

The dental professional needs to be able to identify RAU and take it into account during treatment. Ability to accurately identify and differentiate this relatively benign condition from more serious problems is necessary for the complete patient care.

I have seen recurrent apthous ulcer in clinic. The appropriate treatment has always been a question. Few of my patients have health insurance so the cost to acquire a prescription for a steroid cream is prohibitive. After writing this paper, I feel I have more over-the-counter options to suggest to the patient who wants a more natural treatment.

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