Gum chewer syndrome is a result of unintentional, self-inflicted oral trauma, mostly in dogs. Gum chewer lesions are proliferative sublingual or buccal mucosal tissues. They occur when the dog, and some cats, are eating, panting, barking, protecting the house and yard from any passersby or people in uniform, grooming, or playing with toys. They are common, painful and need to be recognized and treated.

Most dogs with gum chewer lesions show no signs. They are lesions found on oral examination, under anesthesia for the most part. Occasionally they can be seen on the buccal mucosa as the cheeks are moved away from the teeth during the oral examination. Once I saw sublingual gum chewer lesions so large that they literally were hanging out of the mouth of an older bassett hound! When I asked if her pet’s veterinarian had made any comment about the gi-normous lesions, the owner replied that her veterinarian said, “Don’t worry about them.” Had the lesions been in the veterinarian’s mouth that would NOT have been the answer given! These lesions form over months, maybe years, of having the oral mucosa or sublingual tissue unintentionally traumatized repeatedly.

A very sensitive miniature poodle, a concerned owner, and a referring veterinarian gave me a chance to have my “eureka moment” of figuring out what these lesions were in 1988. I had seen them repeatedly in the mouths of some dogs but could not relate them to anything consistently. This 7-year-old, spayed, female poodle was referred with a diagnosis of “oral pain.” The owner said that this poodle had been “jumping back and yelping” intermittently when eating, drinking, or playing with her toys for 9 to 12 months. Nothing abnormal was found on the initial examination, dental examination, or dental radiographs. She was released with instructions to use toothpaste for sensitive teeth.

The patient was referred again 7 months later. The referring veterinarian and owner said, “Do whatever you have to do to stop the pain, even if it means pulling all her teeth.” The poodle had stopped playing with her chew toys altogether and would only pull at fresh tissue on a raw knuckle bone with her front teeth. She had lost 20 pounds since her last visit.

On physical examination, there were no abnormalities and the blood work was normal. However, on oral examination this time, bright red, proliferative sublingual tissue became visible on each side of the mouth under the tongue. The patient had bitten the sublingual tissue each time she yelped!

The patient was anesthetized and after a dental prophylaxis, bilateral sublingual mucoslectomies were performed. An elliptical excision was made from the level of lower third premolar to the second molar tooth using iris scissors and holding tension on the tissue with tissue forceps. The large sublingual vein was in no way involved with the proliferative tissue. The incision was closed using an inverting pattern and 4-0 absorbable suture. A similar excision was performed on the opposite side. The tissues were submitted for histopathological evaluation to Dr. Larry McGill at the Animal Reference Pathology Laboratory in Salt Lake City, Utah.

The patient recovered uneventfully and was sent home with hydrocodone syrup for pain for one week. The patient was feeling so well that the owner took her for a walk after a week. This caused more than normal panting and irritation of the sublingual area, which resulted in patient discomfort. The prescription was refilled for one more week. Even with this minor setback, the owner reported that the poodle had stopped “yelping and jumping back” from her food and water bowl.

Follow-up over a year postoperatively revealed that there was no recurrence of the oral pain or proliferative tissue, and the patient gnawed her rawhide chews without hesitation.

The histopathological report stated that there was “some thickening of the surface epithelium. The underlying tissue contains dilated salivary ducts and some salivary glandular tissue which also appears to be dilated. Focal ulceration of the epithelial surface is seen. Chronic inflammation and fibrosis are evident beneath the ulcerated surface.”

The diagnoses were (1) chronic inflammation and fibrosis and (2) salivary duct dilatation. There appeared to be “no evidence of malignant change in the tissues examined.” In personal communication with Dr. McGill, he commented that tissues similar to these were occasionally submitted as “suspected tumors.”
Although there were no reports in the veterinary literature (at that time) of the type of chronic inflammation and fibrosis seen in this case and no evidence of the stromal eosinophilia see with traumatic, ulcerative granuloma with stromal eosinophilia (TUGSE), the biting of sublingual tissue does occur.

After this case, looking for abnormal oral tissues that could be caused by unintentional self-inflicted trauma became routine. The next most common area where lesions were found was the buccal mucosa along the “bite plane” or occlusal plane, inside the cheeks. These lesions are equally painful. The removal using a laser is extremely easy and pain-free. However, iris scissors work well if laser is not available. The tissue can be closed using 4-0 or 5-0 braided absorbable suture or can be left to granulate. Pain medication is included in the preanesthetic protocol, local anesthetic is used, and pain medication is sent home for two weeks.

Another area of oral trauma occurs under the upper lip of brachycephalic breeds. The lower incisors can impinge on the labial mucosa, producing verrucous lesions. These are excised in a manner similar to the buccal lesions.

To summarize: a pet at risk for sublingual gum chewer syndrome would be a frequent barker, a heavy, fast “panter,” and a generally hyperactive dog. Another scenario, for the bassett hound and brachycephalic breeds, would be lolling the tongue out of the mouth panting or just trying to breath. The thin sublingual tissue stretches easily, “hangs up” on the lower premolar and molar teeth, and is bitten when the tissue does not retract with the tongue.

A pet at risk for buccal gum chewer syndrome is generally a brachycephalic breed with panting and lolling chewing and stretching the tissues unintentionally. These I have dubbed these “double-dipping” gum chewers.

Owners find that the pets stop hiding, stop “fear biting,” play more, and are “happier” once gun chewer lesions have been removed. Gum chewer lesions occasionally have been seen to begin a slow regrowth; however, none has required a second surgery in 20 years of rechecking numerous pets that had one of the gum chewer lesions. This may be because the pets are no longer as active as they were as puppies.

Note: After hearing and seeing these lesions in lectures, a number of veterinarians and staff have told me that they had seen similar lesions, which their dentists had dismissed. Several veterinarians over the years have said they have seen these buccal gum chewer lesions in a few cats.

References

Case #F17819., Animal Reference Pathology Laboratory, Salt Lake City, Utah.
File # 1324, Orchard Animal Clinic, Boise, Idaho.
McGill, L. D., DVM, PhD, DACVP, Personal communication, Salt Lake City, Utah.