

**SALIVARY GLAND PROBLEMS (SIALOCELE AND RANULA):****Swellings in the neck or under the tongue****Overview—“I don’t understand what a sialocele and/or ranula are; please help me understand the condition and the treatment.”**

The salivary system includes a gland, a duct and an opening in the mouth. Saliva is generated in the gland, travels down the duct and exits nicely in the mouth in response to food stimulus. When a gland or duct is injured, either by trauma, inflammation, obstruction or tumor, saliva will leak into the surrounding tissues. The body does not like it there and responds with inflammation (red and white blood cells, etc.) and adds to the swelling.

The most common way these patients show us something is wrong are: 1) One of the glands found in the cheek area (mandibular salivary gland), if gland or duct is leaking, saliva will collect in the neck area (“sialocele”, pronounced sigh-AL-o-seal); 2) One of the glands found alongside the tongue (sublingual salivary gland), if gland or duct is leaking, saliva will collect alongside the tongue (“ranula”). Or a combination of both. Both of these situations cause soft swelling that can range from small to very large.

Treatment is not an emergency; the condition is rarely troublesome to the pet. It is disturbing for pet owners to see and feel, and a swelling in these areas is certainly important to have evaluated by your primary care veterinarian. Draining the pocket of salivary fluid with syringe and needle may fix the problem ONLY if the original duct/gland leak has stopped. It is certainly worth trying; nothing is lost except time. Your pet may still need surgery to fix the problem.

**“Why is this procedure being recommended for my pet?”**

Treatment for the neck “sialocele” is to remove the mandibular salivary gland and duct and drain the saliva pocket. Treatment for the under-the-tongue “ranula” is to create a new/permanent opening into the mouth that allows saliva to drain. This is done by “marsupializing” the swelling; a large hole is made that will shrink with healing and remain a permanent saliva drain point. Rarely this hole will seal and further surgery to remove the gland is needed to stop further leakage.

**“What options do I have to treat my pet’s condition (no treatment; conservative, medical, and surgical treatments)”**

Once the diagnosis is confirmed, if the fluid pocket is small enough and not bothersome, deciding to do no treatment is an option. Either the swelling will go away over several months if the leaking has stopped, or it will get bigger and become bothersome and need further treatment.

The fluid pocket can be drained with a needle and syringe; occasional the fluid swelling will not come back if the leaking has stopped.

**“What postoperative complications do I need to know and understand when considering this surgery?”**

It is common for the neck fluid pocket to take several weeks to months to fully shrink after the gland is removed; saliva is very irritating to the tissues causing inflammation and tissue fluid accumulation after the saliva is removed and the leaking has stopped. If a neck wrap is appropriate, this can prevent or help this go away. Occasionally needle and syringe removal can help this go away too.

When the gland is surgically removed in the cheek area, work is done around the muscles and nerves of the cheek/jaw/tongue. Jaw pain and tongue palsy can occur; this is usually 1-2wks in duration and pain medications help with the pain component.

When the surgery is on the fluid pocket under the tongue (“ranula”), it is expected for your pet to have bloody saliva for 1-2wks as the inflammation goes away and healing occurs.

**“Are there situations when the surgical outcome is not what we hoped it would be?”**

In the case of the ranula treatment, the new hole created to drain saliva into the mouth can scar down too much and result in a new back up of saliva. Further surgical removal of the salivary gland may be needed.

Very rarely, the side of the leakage is not known (left vs. right); the accumulation of saliva is in the center of the neck (sialocele). The choice in this situation can be to get further diagnostic testing done (CT or MRI) to help point to the abnormal gland/duct; or an educated guess can be made, and surgery performed on that side. If leakage continues, the opposite salivary gland can be surgically removed later.

**“How is my pet’s life and lifestyle likely to change after this procedure?”**

For the first 2 months after surgery on the neck, no neck restraint is required. We advise that you have a chest harness for your pet to use on walks, etc.

For the first 2months after surgery under the tongue, no oral pet chew toys is required.

**“Are there things I can do to prepare myself, my home and/or my pet for this procedure?”**

You can prepare your home by removing pet chew toys and anything that you don’t want stained by bloody saliva, if your pet is having surgery on a ranula (under the tongue).

Finding a well-fitting harness prior to surgery will allow your pet to get used to that restraint, if your pet is having surgery on a sialocele (on the neck).

**Outpatient surgery and anesthesia** can be uncomfortable, painful, disorienting, and frustrating experiences for animals; watching your pet work through the early postoperative period and recover from anesthesia and pain medications can be worrisome, scary and frustrating for pet owners. The vast majority of the time this period of difficulty is brief, and *your pet is actually more comfortable and secure at home with you*. Sometimes it doesn’t feel like that at two in the morning when your pet is anxious and not consolable, and you are unsure of what to do. You always have the option of transporting your pet to a 24-hour veterinary facility postoperatively. If you do not want to have your pet home in the first few days postoperatively, please advise your primary care veterinary staff. They will provide contact information for a local 24-hour veterinary facility and help get an estimate for the ongoing care.

It is important that you have proper expectations about this procedure; your experience and you pet’s outcome will benefit greatly. Please discuss this information with your veterinarian when working through the decision-making process regarding **surgical treatment of a sialocele or ranula**.

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