Salivary Mucocele (Salivary Cyst) in Ferrets

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Ferrets can develop a condition in which saliva can collect under the skin of the jaw, near the eye, or at the corners of the mouth. This accumulation of saliva is called a "salivary mucocele," or "salivary cyst."

Ferrets have five pairs of salivary glands. Each gland has a duct that runs under the skin and leads from the gland to the inside of the mouth. Saliva flows through these ducts and enters the mouth to lubricate the mouth, moisten the food, and begin the digestive process.

What causes salivary mucoceles?

Salivary mucoceles occur when saliva either collects in the salivary ducts or leaks from the ducts into the tissues near or within the mouth. This may be caused simply by trauma to the ducts. In some instances, the duct may have been broken or it may have been bruised with the resultant swelling closing off the duct. In other cases, an abscess or tumor in the area may put enough outside pressure on the duct to pinch it off as you might a garden hose. Finally, there are instances when the glands, because of an internal inflammatory process, release a fluid that is just too thick to make its way through the tiny ducts. This again leads to an obstruction. All of these cases have the same final result. Whether the duct was originally ruptured or not, the pressure of continued saliva production by the glands will finally cause the walls of these tiny tubes to break, and allow saliva to leak into the surrounding tissue.

Saliva leaking into the tissues almost always develops into a major problem because the fluid is produced constantly and in large quantities. Additionally, possibly because of the viscosity, the body has a difficult time reabsorbing it. The fluid simply continues to build and forms large cysts.

What are the signs of a salivary mucocele?

Salivary mucoceles will appear as enlargements under the jaw, near the eye, or at the corners of the mouth. The ferret is able to breathe, eat, and drink in a normal fashion. Swallowing rarely seems to be impaired. The other area where mucoceles may be found is under the tongue. A mucocele in this location is referred to as a 'ranula.' A ranula may cause problems with eating and drinking by limiting normal movement of the tongue or getting in the way when food is being chewed.

How is a salivary mucocele diagnosed?

> Salivary mucoceles should be seen by a veterinarian as soon as possible.

A swelling in the area of the jaw or mouth could be caused by other problems including puncture wounds, abscesses, infections of the teeth, and tumors. To determine if the swelling is caused by saliva, a fine needle is placed into the swelling and some of the fluid is drawn up into a syringe. Upon examination, if the fluid is saliva, it will be thick, and when viewed under the microscope will contain few cells.

What is the treatment for salivary mucoceles?

When attempting to treat a salivary mucocele, medical therapy alone is rarely successful. There are isolated instances in which a local infection or inflammation can be eliminated with medication. If the salivary duct flow has only been restricted, all may return to normal. Once the salivary duct has ruptured, however, the leakage will continue.

Surgery is required in cases where saliva is leaking into the surrounding tissues. To avoid recurrence, the affected gland is removed. This is easier said than done because of the many nerves and major blood vessels in this area. Although removal of a gland may seem extreme, the remaining glands respond to the increased need for saliva and adjust their production to compensate for the removal. In addition to removing the gland, the mucocele is opened, and the fluid is drained; then excess tissue is removed and the skin is closed.

In cases involving a ranula, the surgery is much more simple. The ranula is opened and its walls are basically turned inside out and sutured down to the lining of the mouth. This creates an everted pouch that slowly heals, forming a new opening for the salivary duct. The salivary glands themselves are not affected in the surgical correction of a ranula.

The important point for owners to recognize is that a ferret with a salivary mucocele should be seen by a veterinarian as soon as possible. If the owner waits too long, the swelling may be so large, it may be difficult for the veterinarian to determine on which side or area it originated. No one wants to surgically remove one gland and then discover it was the wrong gland. Help your veterinarian and your ferret with an early trip to the clinic.

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