



Nasopharyngeal Polyps

Associated Terms:

Inflammatory Polyp, Bulla Osteotomy, Ventral Bulla Osteotomy, Middle Ear Polyp, Polyp, Pharyngeal Polyp, Throat Polyp



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Overview:

A nasopharyngeal polyp is a pinkish-white mass of tissue that grows from the back of the throat, Eustachian tube (the small tube that drains the middle ear into the throat) or the middle ear itself. Inflammation of the lining of one of these areas causes the tissue to become thick. Sometimes the mass will actually grow into an organized, round or oval growth that hangs down into the airway at the back of the nasal cavity. The cause of polyps is unknown; however, it is suspected that cats develop them because of reaction to infectious agents such as respiratory viruses.

Signs and Symptoms:

Although nasopharyngeal polyps can occur in any age cat, they are often seen in young adult cats. **At first the cats will have no clinical signs**, unless drainage from the middle ear is blocked. When the polyp becomes large enough, cats may develop signs, such as:

- sneezing
- nasal discharge
- gagging
- voice change



Figure 1. A young adult cat with a

- difficulty breathing (Figure 1)

If the middle ear drainage is blocked, or if the polyp grows up into the ear instead of the throat, cats will have signs of *otitis externa* (ear infection) with drainage from the ear, head shaking and changes in the shape of the pupils of their eyes.

nasopharyngeal polyp struggles to breathe. Cats that are having trouble breathing may extend their necks and pant and are very anxious. It is important not to stress them.

Diagnostics:

Nasopharyngeal polyps can be seen (Figures 2 and 3) or felt under the soft palate, the muscular layer of tissue that separates the back of the nose and mouth.

The soft palate can be pushed downward if the polyp is large enough, interfering with swallowing. Most cats must be anesthetized before the back of the mouth can be examined. If the polyp originates in the middle ear, your primary care veterinarian may see it below the ear drum ("tympanic membrane") with an otoscope. Occasionally nasopharyngeal polyps are diagnosed by x-ray (Figure 4) or CT examination. CT scans will also help the veterinarian determine whether the polyp has extended into the middle ear.



Figure 2. A small polyp (arrow) is hidden underneath the soft palate of a cat.

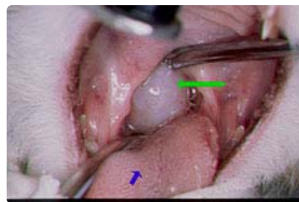


Figure 3. This cat's tongue (blue arrow) is pulled down to see the back of its throat. A large polyp (green arrow) fills the entire back of the throat, making it difficult for the cat to eat or breathe.



Figure 4. X-rays of a cat's skull. The arrow indicates the bony bulla, or middle ear,

where many of these polyps originate.

Treatment:

Nasopharyngeal polyps can be removed by gentle steady traction (pulling) on the mass (Figures 5 and 6).



Figure 5. With the cat under anesthesia, the veterinarian grasps the polyp under the soft palate with an instrument and pulls slowly and steadily.



Figure 6. The polyp has been removed; the long stalk extended from the polyp up the Eustachian tube and into the middle ear, where the polyp originated.

Unfortunately, the base of the mass cannot be removed by traction in half of cats, and the mass will regrow. Therefore, removal of the base of the mass through a ventral bulla osteotomy (opening up the bony middle ear) is often performed to ensure there is no recurrence. Your veterinarian may refer you and your cat to an ACVS board-certified veterinary surgeon for this procedure.

Aftercare and Outcome:

Most cats recover rapidly from the surgery and need no special care. Cats that have inner ear damage should be prevented from climbing and may need extra encouragement with eating until their balance returns.

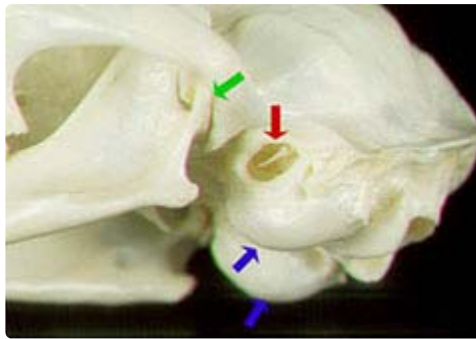


Figure 7. Cat's skull. The blue arrows point to the bullae- the bony sacs that form the middle ears. The red arrow points to the site where the ear canal connects to the skull. The ear drum would cover this opening. The green arrow points to the TMJ- the joint between the lower and upper jaws.



Figure 8. Horner's syndrome in a cat after ventral bulla osteotomy on the left side. The cat's left third eyelid has come up to block a portion of the eye, and its left pupil is small. The eye is also pulled back in the socket.

Several critical structures are found along the outside of, or within, the bony sac ("bulla") that forms the middle ear (Figures 7 and 8).

The TM joint, which is the hinge of the lower jaw, and the muscles of the base of the tongue, which attach near the bulla, can become swollen after the surgery, so cats may be reluctant to eat or swallow. The nerve to each side of the tongue also runs along the bulla. Within the bulla, some of the nerves to the eye cross along the inner wall. These nerves are often damaged when the polyp is pulled by traction or when a ventral bulla osteotomy is performed.

About 80% of cats develop Horner's syndrome after the procedure because of nerve damage (Figure 8).

In these cats, the third eyelid is elevated, covering the bottom half of the eye, and the pupils are different sizes. Horner's syndrome is usually temporary and does not affect the cat's behavior. Since the opening to the inner ear is also found in the bulla, about 40% of cats will show some balance problems, particularly a head tilt, and they may be wobbly and have rapid uncontrolled movements of their eyes. This condition is also usually temporary, but it has a much greater affect on the cat's well-being while it lasts. The lining of the bulla, which is the source of the polyp, must be removed to prevent the polyp from regrowing. Therefore the veterinary surgeon has to find a balance between too much cleaning, which can result in the above complications, and not enough, which can result in recurrence of

the original signs.

Recurrence of the polyp is very unusual after ventral bulla osteotomy. Prognosis for recovery is excellent, even in cats that develop Horner's syndrome or balance problems after surgery, since these signs usually resolve within a month.

This Animal Health Topic was written by and reviewed by Diplomates of the American College of Veterinary Surgeons. Any opinions stated in this article are not necessarily the official position of the American College of Veterinary Surgeons.

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