



Ventral Bulla Osteotomy (VBO) & Nasopharyngeal polyps in cats

Indications:

A ventral bulla osteotomy (VBO) is a procedure where the middle ear is approached through an incision along the underside of the neck, and is indicated in animals with middle ear disease, such as a chronic infection or a tumor.

Nasopharyngeal polyp (cats):

Cats often have middle ear polyps (sometimes also called nasopharyngeal polyp): this polyp is benign, but can grow in the external (outer) ear, middle ear and in the nasopharynx. The polyp is attached in the middle ear, and a VBO is always part of the surgical treatment plan. Traction of the external ear part of the polyp is a low risk treatment that has successfully treated the disease in some cats, however if the polyp grows back, or if the disease is severe, surgery might be indicated.

Preoperative workup and other diagnostics:

- General physical examination with otoscopic evaluation of the ear canal
- Preoperative laboratory work (CBC, chemistry profile, urinalysis, thyroid function testing)
- Dermatology consultation (in certain instances) if the pet is not prior seen by the dermatology service
- CT Scan of the head
- Chest x-rays/Abdominal ultrasound/CT of the chest +/- abdomen (in cases of ear masses or suspected cancer)
- Culture middle ear contents – most commonly taken at time of surgery
- Histopathology of the contents of the middle ear after surgical removal

Procedure:

VBO

An incision is made along the underside of the neck. The middle ear is a cavity surrounded by bone, except for the opening to the ear canal. A part of the bone is removed to make a window into the cavity, and allow for the fluid/tissue that has been trapped in the middle ear to be removed. The bone is not placed back but scar tissue will form a lining during healing.

Nasopharyngeal polyp (cats):

For this specific disease, the polyp might have grown in 3 different locations (middle ear, nasopharynx, external ear), and surgical treatment would consist of a VBO (see above), +/- removal of the part in the external ear, +/- removal of the nasopharyngeal part.

External ear part: oftentimes this part of the polyp is removed together with the rest of the polyp through the VBO, or the loose part is removed from the ear after the VBO.

Nasopharyngeal part: removal is performed via the mouth. The polyp is situated above the soft palate in the roof of the mouth. Ideally the polyp is grasped and removed via traction (after it is loosened by performing the VBO), but sometimes it cannot be reached with instruments. In these cases, a small incision might have to be made in the roof of the

mouth to grasp & remove the polyp, after which the incision is sutured closed with sutures that will absorb on their own (and do not have to be removed).

Complications:

As with any surgical procedure, there are always risks associated with general anesthesia. For otherwise healthy pets, these risks are usually low, but are considered increased in animals with systemic illness.

Several important structures are located in and around the middle and external ear. As a result, the potential complications of a VBO include:

- Facial nerve paresis/paralysis (temporary in most cases, but may be permanent)
- Horner's Syndrome (temporary in most cases, but may be permanent) – more common in cats than in dogs
- Vestibular signs such as: head tilt, nystagmus, nausea, vomiting. These are temporary in most cases, but may be permanent.
- Bleeding during surgery,
- Swelling of the neck immediately after surgery: the risk of severe swelling is increased if both middle ears were treated, or if a polyp in the mouth (nasopharynx) had to be removed. Severe swelling in this area might obstruct the airways, and patients are closely monitored in an ICU unit immediately after surgery.
- Incisional dehiscence or infection
- Recurrence of the polyp/disease

Your surgeon will discuss these complications in more detail during your pet's visit.

Postoperative Care:*In hospital care:*

Severe swelling in this area might obstruct the airways, and patients are closely monitored in an ICU unit immediately after surgery. Your pet will be given pain medication, antibiotics and IV fluids, and monitored closely until we are comfortable allowing your pet to continue their recovery at home.

At home care:

After your pet leaves the hospital we will have you continue to administer oral pain medications and antibiotics. Antibiotics are generally continued for 2-4 weeks depending on the particular condition. The specific type of antibiotic may need to be changed pending the results of the culture obtained at surgery.

Some animals may experience swelling around the ear following surgery. If this occurs, you will be instructed to apply either ice or a warm compress depending on the circumstances. Prior to this you will be asked to monitor your pet's incision for any signs of swelling, redness, discharge or pain.

Prognosis

Pets that have chronic ear disease generally feel better after recovery from their surgery.