



TOTAL EAR CANAL ABLATION AND BULLA OSTEOTOMY (TECA-BO) INFORMATION SHEET

The Theory

TECA-BO is performed mainly in dogs and cats with chronic ear disease that either doesn't, or has stopped responding, to medical management. This may be due to the inherent conformation of the ear, or associated with long term changes that the ear canal can go through, due to long term ear disease and recurrent infection. It is sometimes performed in animals with tumours isolated to the vertical or horizontal ear canal.

The aim of the surgery is to remove the entire lining of the ear, so that further infection is not possible, or so that tumour tissue is removed.

Complications of this surgery, discussed further on in this information sheet, can involve facial nerve paralysis, vestibular (balance) dysfunction and Horner's syndrome. However, some of these problems can be pre-existing caused by infection or a tumour therefore ultrasound or x-ray may be urgently required.



The procedure

The surgery involves removal of the entire ear canal (vertical and horizontal sections) as well as the lining of the middle ear, which is situated inside the tympanic bulla. The tympanic bulla is a bony prominence at the base of the skull. Opening of this bulla is termed “bulla osteotomy” and allows access to and removal of diseased tissue and epithelial lining.

On occasion, a surgical drain will be placed to manage any fluid that can build up within the tissues and under the skin after this surgery. This will be discussed with you by the primary surgeon, and specific care of this drain will be detailed in your post-operative care information sheet.

The Aftercare

TECA-BO is a major surgery. We use a “multimodal analgesic” approach, which means we use a combination of anti-inflammatories, local anaesthesia and pain relief, to make your pet as comfortable as possible. There are some aspects of care at home that you can do after the surgery, that may also help. You will receive a separate post-operative care information sheet, as mentioned above, but the following information should help.

Surgical wound

The technique of removal may involve what we term a “T” or “ellipse” incision, therefore the surgical wound will either look like a T or a straight line, underneath the pinna (ear flap). This wound will need to be checked twice a day. Please report any swelling, discharge or breakdown (opening) of the wound. Please also see separate instructions on care for any drains that have been placed.

Medication

You will be given a combination of medications for pain relief and prevention of infection. Any changes in demeanour, vomiting or diarrhoea should be reported immediately to your vet.

Exercise restriction

As the tissue heals, we would recommend not walking your dog to prevent problems with sutures catching on anything, or unwanted play/interference from other dogs or cats. Toileting in the garden should suffice for dogs, with house rest and litter availability for cats.

Suture removal

On occasion “intradermal” or hidden sutures are placed when the incision site is closed. If skin stitches are present, they will be removed 10-14 days after the surgery. From here, your pet can go back to their normal activity levels.

What to Expect

The aim of this surgery is to remove a source of recurrent infection and pain, or tumour.

As the entire ear canal is being removed, hearing will be affected. Many patients do not appear to have a change in hearing function post operatively since disease has already affected their hearing significantly.

Potential Complications

Wound infection

Despite modern antibiotics, preparation techniques and disposable drapes and gowns, infection can occur. Added to this, as it is often infected tissue that is being removed, the risk for post-operative infection is slightly higher with this specific surgery. The reality is that we do not often see infections, and the treatment is often just a course of antibiotics.

Haemorrhage

Due to the vasculature (blood supply) in the region of the operative site, haemorrhage (bleeding) can occur. In very rare cases, surgery is abandoned due to haemorrhage. There are exceptionally rare cases reported of fatal blood loss.

Potential Complications Continued

Nerve damage

The facial nerve which controls the blink reflex, tear production and some facial muscles runs very close to the horizontal ear canal that is removed and can therefore be stretched. In some cases, with very diseased ear canals, the facial nerve can become incorporated in the tissue that needs to be removed, so damage is inevitable. Temporary facial nerve paralysis due to nerve bruising or stretching during the procedure, can occur in 25% dogs and up to 56% cats. This normally resolves within 2-3 weeks but eye lubricants will be required in this time, as the blink reflex and tear production are reduced. Unilateral lip droop can also be evident. Permanent facial nerve paralysis is less common but can occur.

Inner ear damage

The nerves responsible for hearing and balance are found in the inner ear, which is next to the middle ear. Occasionally damage to these structures can occur. Damage to the balance apparatus is a serious complication, and some patients may not recover. This complication is very rare.

In cats, a transient syndrome called "Horner's syndrome" can occur. The eye appears to be sunken (with the third eyelid covering some of the front of the eyeball), the eyelids themselves will be closer together so it will look like the cat is squinting, the pupil will also be constricted. This should resolve within 2-3 weeks.

Recurrence of infection

It is possible, but rare, for the infection associated with diseased ear lining, to recur. This usually happens if infected tissue removal is incomplete. The surgeon will on occasion need to balance the need to prevent infection, with the need to avoid damage to the inner ear. If insufficient middle ear lining is removed, then abscessation can occur requiring further surgery.