Total ear canal ablation (TECA) and Bulla osteotomy (BO)

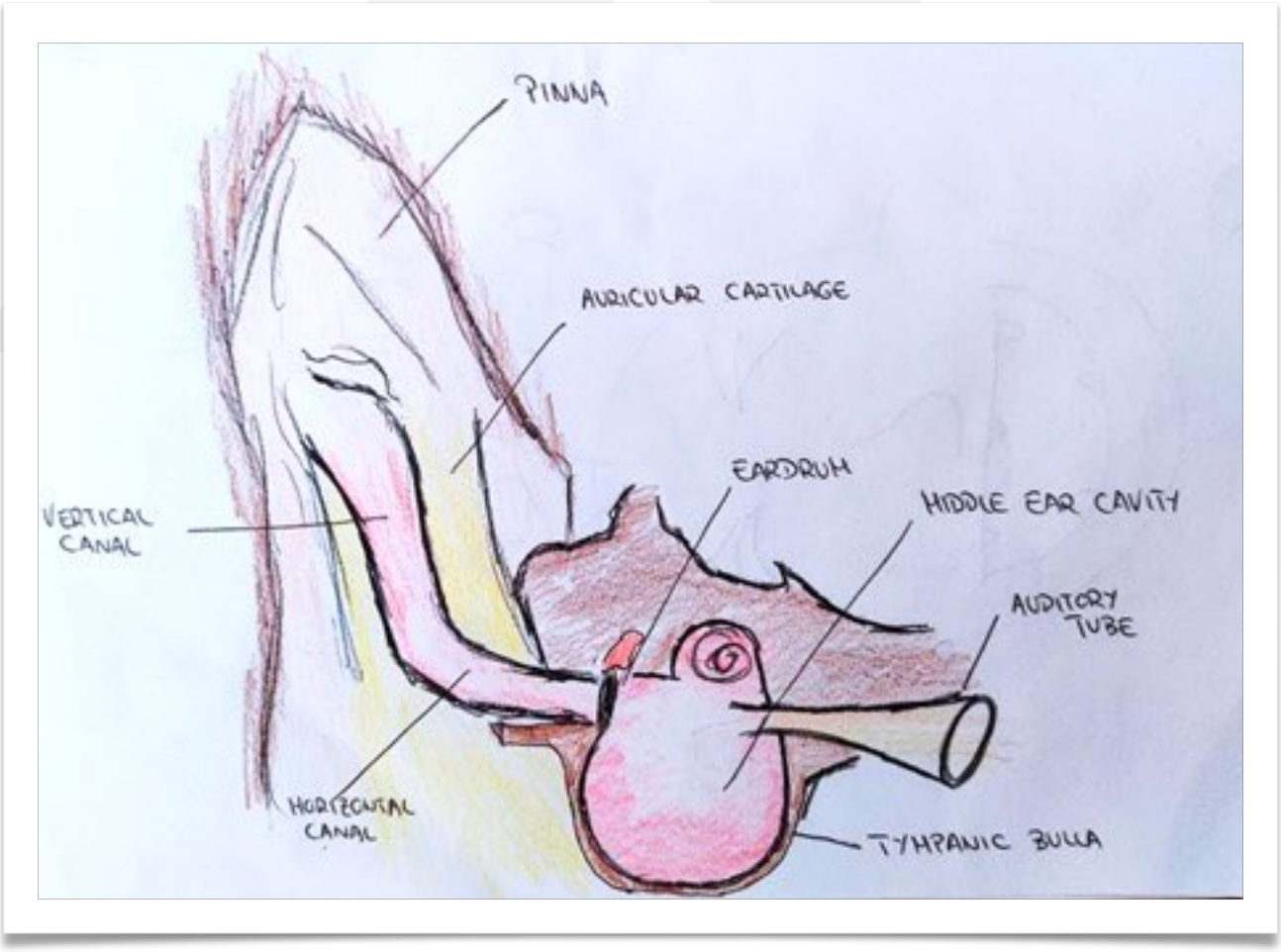
TECA is a surgical procedure reserved for patients with chronic ear disease, that have ceased to respond or have never responded sufficiently to medical management.

Repeated flare-ups of otitis (inflammation of the ear) may lead to structural changes that may make medical management challenging and frustrating. Certain breeds of dog are predisposed to inflammation, and may also have a predisposing ear conformation (i.e. low and hanging ears), whereas other patients may undergo this procedure if a tumour is isolated to the ear canal.

The Procedure

TECA surgery entails complete removal of the ear canal (both the vertical and horizontal canal).

Most patients will also benefit from a BO – a bulla osteotomy. The middle ear is a chamber lined with tissue, in the tympanic bulla bone. This procedure involves creating an opening in the bulla in order to remove any diseased tissue and material from the middle ear to prevent future relapses.



Above: Anatomy of the canine ear

Post-operative care

A TECA is a major surgical procedure and patients will usually require a multimodal approach to managing post-operative pain during recovery. Your pet will also receive a course of antibiotics.

During the first week, the surgical site will need to be checked twice a day for wound breakdown. Throughout the recovery, regular monitoring is required in order to recognise any changes in behaviour or appetite that may indicate pain requiring additional treatment.

Your pet will be discharged with a protective collar, to prevent any self-trauma. Exercise should be restricted to short walks on the lead (10-15 minutes, 2-3 times daily) for the first 2 weeks.

Risks and potential complications

Nerve trauma

The facial nerve is positioned alongside the ear canal, and controls the blink reflex, tear production and certain facial muscles. This nerve can be affected during surgery due to stretching and manipulation of the soft tissue, resulting in temporary facial paralysis. This will most commonly be recognized by: a loss of the blink reflex, and a “droopy face”. Until normal function is regained (usually up to 3 weeks), the patient will require lubrication to keep the eye moist and free of ulcers. Permanent facial nerve paralysis is very uncommon.

Inner ear damage

This is a serious but very uncommon complication, resulting in deafness and loss of balance.

Ear pinna necrosis

If the blood supply to the ear flap (the pinna) is affected, this may result in necrosis. This is an uncommon complication but can be treated with a further procedure (called a pinnectomy) to remove the affected area.

Ear infection

During a bulla osteotomy, the middle ear lining is removed with as much diligence as this delicate area allows. At the same time, great care is taken not to damage the inner ear (located just beyond the middle ear) in order to avoid permanent damage (see above). If any tissue is left behind in the inner ear during a BO, infections can occur.

Haemorrhage

The middle ear has a rich blood supply, and severe intraoperative haemorrhage can cause a surgery to be abandoned or postponed, to prioritise the safety of the patient. However uncommon, cases of fatal blood loss have been reported.

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Following this advice should help your pet recover quickly however if you have any questions, please contact your veterinary practice.