

'TJ' 7YO 30KG LABRADOR CROSS

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DAY 1

Clinical signs:

- Long history – bilateral otitis externa.
- Ears – thickened, smelly and painful.
- Pododermatitis.
- Primary atopic dermatitis with secondary infection of ears and paws suspected.

General anaesthetic:

- Purulent exudate.
- Tympanic membrane not visible.
- Swabs – both ears – cytology and culture/sensitivity.
- Ears syringed with warmed saline – bleeding and ulceration.
- X-rays – the left bullae was thickened (confirming otitis media left ear).
- Cytology
 - (a) Ears – mixed with Gram-negative rods (suspicion of Pseudomonas infection). Await culture/sensitivity.
 - (b) Paws – Gram-positive cocci (suspicion of Staphylococcal dermatitis secondary to atopy).
- Medication:
 - (a) Baytril otic – twice daily (for ears).
 - (b) Baytril tablets – once daily at 15mg/kg – three times registered dose (for ears and paws).
 - (c) Prednisolone once daily at 1mg/kg (for ears and paws).

DAY 3

Culture and sensitivity: Pseudomonas, Staphylococcus intermedius and Corynebacterium sp.– all sensitive to Enrofloxacin, Marbofloxacin and Ticarcillin.

DAY 14

- Right ear – improved, tympanic membrane intact.
- Left ear – Purulent, painful and smelly, tympanic membrane necrotic.
 - (a) Cytology: Gram-negative rods.
 - (b) Syringed with warm saline (more purulent material and loose hair was flushed).
- Paws – improved.
- The owner warned – if no improvement with LEFT ear in 14 more days with Baytril tablets and Baytril otic, then ear ablation indicated.

DAY 28

- Purulent, painful and smelly.
- Left ear ablation and bullae osteotomy performed – considerable pus and loose hair removed from the bullae.

DAY 42

Ablation surgery healed well; dog pain free.

DAY 56

- Baytril continued 28 days post surgery.
- Prednisolone – 1mg/kg every alternate day (ear/paw inflammation well controlled).
- Owner extremely happy with the results as TJ had been unsuccessfully treated previously at a number of veterinary practices.

18 MONTHS POST TREATMENT

No recurrence.

NOTES ON ANTIMICROBIAL THERAPY: TJ THE LABRADOR CROSS



SELECTION OF THE ANTIMICROBIAL:

Enrofloxacin (Baytril) is a concentration dependent antimicrobial with excellent activity against susceptible strains of *Pseudomonas* as well as *Staph intermedius* and *Corynebacterium sp.* Efficacy depends on the **level achieved** above the Minimum Inhibitory Concentration (MIC) of the pathogen, not the **time** above the MIC.

DOSE SELECTION:

A systemic dose rate of 15mg/kg Enrofloxacin has been selected for this case (in contrast to the registered dose of 5mg/kg). *Pseudomonas*, in particular, shows wide variation between strains in susceptibility to antimicrobial therapy and the elevated dose rate ensures the **peak level achieved** is well above the MIC required for efficacy. The susceptibility of both *S. intermedius* and *Corynebacterium sp.* is more predictable with lower MIC values than for *Pseudomonas*. Therefore the elevated dose rate is more than adequate to control these pathogens.

ADDITIONAL TOPICAL THERAPY:

Many cases of otitis externa are characterised by thickening of the ear canal tissue. Systemic antimicrobials may have difficulty localising out to the surface layers of the skin so the addition of topical Enrofloxacin plus Silver Sulphadiazine (Baytril Otic) ensures maximum exposure of the pathogen/s to the therapeutic agent.

Although no fungal organisms were isolated, Baytril Otic also has antimycotic activity. In addition, TJ's ulcerated ear canals would benefit from the tissue healing capability of Silver Sulphadiazine.

DURATION OF THERAPY:

Chronic otitis externa, especially in the presence of a ruptured tympanic membrane, requires an extended duration of therapy – in TJ's case, 28 days post surgery. Enrofloxacin, even at elevated dose rates for longer periods, is well tolerated in the dog.

BAYTRIL:

- Has excellent tissue penetration in skin, reaching therapeutic levels as early as 3 hours after administration
- Is highly lipophilic, allowing it to pass through fibrous tissue, scar tissue, pus and inflammatory debris to reach the site of infection
- Accumulates in white blood cells which means:
 - It's directly and selectively carried to the infection site
 - Tissue penetration is enhanced

Baytril Otic (the only fluoroquinolone approved for topical treatment of canine otitis externa):

- Is non ototoxic
- Is flexible, in that it can be used with or without a steroid
- Has broad dual antibacterial and antimycotic spectrum

