

NO MORE CRYING OVER SPILT MILK

By: Julie Hearn – Southcoast Animal Hospital



THE PROBLEM

Kaysha is a 3 year old Boxer who whelped seven puppies after a long, assisted labour.

Motherhood seemed to be suiting her until the puppies were 8 days old, then the milk went bad!

Kaysha developed a nasty mastitis with hard, hot, painful mammary glands and a serosanguineous discharge.

The puppies were banned from the milk bar and hand raised by their human "mum", whilst Kaysha started on antibiotics (Amoxicillin/Clavulanic Acid).

2 days later, she still had a bloody discharge, but had now gone off her food – unlike the puppies, which are drinking their new mum out of house and home.

THE TREATMENT

The 10 day course of antibiotics was completed, at which stage the mammary discharge persisted and Kaysha was still inappetent, so a swab was taken for culture and sensitivity and the antibiotics changed to Cephalexin.

Laboratory culture grew *Staphylococcus intermedius*, sensitive to most antibiotics (including the previously prescribed cephalexin and amoxicillin/clavulanic acid).

By this stage, it was almost a month since whelping and Kaysha still had a bloody mammary discharge, poor appetite, no access to her puppies and was miserable.

Baytril (Enrofloxacin 150 mg SID) tablets were commenced and WITHIN 3 DAYS her appetite had increased and the bloody mammary discharge had finally started to dry up.

Despite pathology results indicating sensitivity to multiple antibiotics, the excellent tissue penetration of Baytril had finally given us success in healing this difficult infection where the other antibiotics couldn't!

To complicate things for their long suffering foster mother, the puppies developed *Cheyletiella* at 6 weeks of age, which was quickly successfully treated with Advocate (on advice from Bayer for use at this age).

THE RESULT

Two months after having the puppies, Kaysha (now 100%) was desexed and her owner thrilled to have a normal pet back again.



NOTES ON ANTIMICROBIAL THERAPY: KAYSHA THE BOXER



SELECTION OF THE ANTIMICROBIAL:

Enrofloxacin (Baytril) is a concentration dependent antimicrobial with excellent activity against *Staph. intermedius*. Efficacy depends on the **level achieved** above the Minimum Inhibitory Concentration (MIC) of the pathogen, not the **time** above the MIC. Baytril also displays a pronounced Post-Antibiotic Effect (PAE) on pathogens allowing for once-daily dosing which results in increased owner compliance.

DOSE SELECTION:

The standard dose rate of 5mg/kg Enrofloxacin has been selected for this case due to the therapeutic levels achieved in the dog and the MIC values for the pathogen. Baytril is effective against more than 95% of *S. intermedius* strains at a level of $\leq 0.25 \mu\text{g/ml}$ while C_{max} is $>2.0 \mu\text{g/ml}$ when administered at 5mg/kg daily. So the **peak level achieved** is above the MIC required for efficacy by at least a factor of 4.

WHEN TISSUE IS THE ISSUE, PENETRATION MATTERS:

Baytril's superior tissue penetrating ability is the key to success. Systemic distribution is achieved to most tissues in the body and the lipophilic nature of Baytril produces high levels in the mammary glands and milk. In addition, Baytril remains active in the presence of pus and inflammatory debris and its bactericidal nature ensures pathogens are rapidly eliminated. In Kaysha's case, an improvement in the condition was noted within 3 days of commencing therapy.

DURATION OF THERAPY:

Enrofloxacin, even at elevated dose rates for longer periods, is well tolerated in the dog. This allows practitioners to monitor the condition and adjust the duration of therapy to suit. The label recommendation is to continue therapy for 2 to 3 days after the cessation of clinical signs.

BAYTRIL:

- Has excellent tissue penetration, 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

Advocate (Imidacloprid + Moxidectin):

The successful control of Cheyletiella in the pups is an added bonus. While the product does not have a registered claim for this parasite, the resolution of this infestation demonstrates the versatility of Advocate for external parasite control.

