

OPTIXCARE® EYE EMS: CLINICAL APPLICATIONS

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Introduction and Positioning

Optixcare® Eye EMS is an extracellular matrix substitute that helps prevent the degradation of matrix proteins and promotes matrix regeneration in damaged corneal epithelium.

Optixcare® Eye EMS has been used at the Guelph Animal Hospital for over 1 year on a variety of patients such as bulldogs, boxers, brachycephalic breeds as well as cats, presenting with:

- ▶ acute corneal ulcers;
- ▶ chronic non-healing corneal ulcers and;
- ▶ following keratotomy procedures.

Results and Outcomes

The results have been very consistent and rewarding. Boxers, bulldogs and other brachycephalic breeds can often present with corneal ulcers that can be difficult to heal. Optixcare® Eye EMS has provided the ability to significantly improve these outcomes by allowing much quicker and efficient healing! This has helped to avoid what otherwise might have required significantly more keratotomy procedures! Cases that had failed to heal after their initial keratotomy, went on to heal when Optixcare® Eye

EMS was added to the subsequent procedure.

Guelph Animal Hospital Protocol

Optixcare® Eye EMS was primarily used in combination with appropriate antibiotics and other therapeutics on superficial corneal ulcers that were believed to be more at risk of delayed healing. It was also included as part of our post-keratotomy protocol.

Upon Examination:

1. It is important to debride any loose epithelial edges to the ulcer with a sterile cotton tipped swab.
2. A single drop of 1% Isopto-Atropine may be applied at the initial visit to help relieve ciliary spasm making the eye more comfortable.

The following is then sent home with the owner with these instructions:

1. Optixcare® Eye EMS – apply 1 drop to the affected eye (every other day) at least 10 minutes prior to all other medications. If uncertain if the initial drop covered the cornea, an additional drop may be applied. **Typical protocol is 1 drop from 1 ampoule per application.**

We will often apply the first treatment at the clinic.

2. Administer appropriate antibiotic drops at least 10 minutes following Optixcare® Eye EMS. The antibiotic drops are then continued usually 3-4 times daily (where as the Optixcare® Eye EMS is only administered once every other day). For higher risk ulcers or post keratotomy we usually use a combination of cefazolin eye drops, made up to a concentration of 33 mg/ml in clinic plus a fluoroquinolone eye drop such as Ocuflax.
3. For difficult healing ulcers or post-keratotomy, Muro 128 (sodium chloride hypertonicity ophthalmic solution) is applied 3 times a day – at least 10 minutes following antibiotic drops to aid in epithelial adhesion and to help prevent corneal edema.
4. This protocol is continued until no further stain uptake is noted at which point the Optixcare® Eye EMS is no longer required.