1. NAME OF THE MEDICINAL PRODUCT
Oxytetracycline Hydrochloride w/Polymyxin B Sulfate (Terramycin*)

2. QUALITATIVE AND QUANTITATIVE COMPOSITION (ACTIVE INGREDIENTS)
Terramycin Ophthalmic Ointment with Polymyxin B contains 0.5% oxytetracycline and 10,000 units of Polymyxin B per gram of sterile petrolatum base.

3. PHARMACEUTICAL FORM
Terramycin with Polymyxin B Ophthalmic Ointment

4. CLINICAL PARTICULARS
4.1 Therapeutic indications
TERRAMYCIN with Polymyxin B Ophthalmic Ointment is indicated in the treatment of superficial ocular infections involving the conjunctiva and/or cornea due to susceptible microorganisms.

4.2 Posology and Method of Administration
TERRAMYCIN with Polymyxin B Ophthalmic Ointment is administered as a small quantity (approximately 1 cm) of the ointment which should be applied into the conjunctival sac of the lower lid 4 to 6 times daily until the infection is cleared and healing is complete. This may take from one day to several weeks depending on the nature and severity of the infection. In blepharitis, scales and crusts should be removed before applying medication. For prophylaxis, the same procedure is followed on the day before the operation and subsequently for several days following it.

The patient should be instructed to avoid contamination of the tip of the tube when applying the ointment.

4.3 Contraindication
These products are contraindicated in persons who have shown hypersensitivity to any of their components.

4.4 Special Warnings and Special Precautions for Use
As with other antibiotic preparations, TERRAMYCIN may result in overgrowth of nonsusceptible organisms, including fungi. Constant observation of the patient for this possibility is essential. If new infections due to nonsusceptible bacteria or fungi appear during therapy, appropriate measures should be taken.

Usage in Children
Systemic administration of tetracyclines during tooth development (last half of
pregnancy, infancy, and childhood to the age of 8 years) may cause permanent
discoloration of the teeth as well as retardation in the development of the
skeleton. Enamel hypoplasia has also been reported. Although these effects are
unlikely following topical application of tetracyclines because of the low doses
used, the possibility that these effects could occur should be considered.

4.5 Interaction with Other Medicaments and Other Forms of Interaction
None established.

4.6 Pregnancy and Lactation
Pregnancy
There are no controlled studies to date using topical tetracyclines in pregnant
women. The use of systemic tetracyclines in pregnant women has resulted in
retardation of skeletal development and bone growth in the fetus. Nonetheless,
topical tetracyclines should be used during pregnancy only when the possible
benefits outweigh the potential risks.

Lactation
It is not known whether topically applied tetracyclines are distributed into breast
milk. Tetracyclines are distributed into milk following systemic administration.
Because of the potential for serious adverse reactions in nursing infants, a
decision should be made whether to discontinue nursing or discontinue the drug,
taking into account the importance of the drug to the mother.

4.7 Effects on Ability to Drive and Use Machines
Oxytetracycline topical preparations are not expected to have an influence on the
ability to drive and to operate machinery. However, directly following the
application of the ophthalmic dosage form, a short period of less acute vision may
occur.

4.8 Undesirable Effects
Terramycin is an antibiotic of low toxicity. Allergic reactions, including contact
dermatitis, due to individual hypersensitivity have been reported. If such reactions
occur, therapy should be discontinued.

Increased lacrimation, a transient stinging or burning sensation, and a foreign body
sensation have been reported occasionally with ophthalmic tetracycline products.

4.9 Overdose
No cases of overdosage with topical use of oxytetracycline have been reported.

5. PHARMACOLOGICAL PROPERTIES
5.1 Pharmacodynamic Properties
Oxytetracycline is a product of the metabolism of \textit{Streptomyces rimosus} and is
one of the family of tetracycline antibiotics. Oxytetracycline is primarily
bacteriostatic and is thought to exert its antimicrobial effect by the inhibition of
protein synthesis. Oxytetracycline is active against a wide range of gram-negative
and gram-positive organisms.
The drugs in the tetracycline class have similar antimicrobial spectra, and cross resistance among them is common.

Polymyxin B Sulfate, one of a group of related antibiotics derived from *Bacillus polymyxa*, is bactericidal. This action is exclusively against gram-negative organisms. It is thought to act by altering the structure of the bacterial membrane resulting in leakage of essential intracellular components. It is particularly effective against *Pseudomonas aeruginosa* and *Haemophilus aegyptius*, frequently found in local infections of the eye.

Thus the combination of TERRAMYCIN and Polymyxin B Sulfate is a particularly effective antimicrobial combination against causative or secondarily infecting organisms.

One mg of pure Polymyxin B is equivalent to 10,000 units.

5.2 Pharmacokinetic Properties

**Oxytetracycline**

In one study in rabbits with abraded corneas, oxytetracycline hydrochloride concentrations of 28 mcg/ml were detected in the aqueous humor 30 minutes after 5-minute bathing of the eye with a solution containing 5 mg/ml of oxytetracycline.

**Polymyxin B**

Polymyxin B is poorly absorbed from mucous membranes. In one study in rabbits, 0.1 mcg/ml concentrations of polymyxin B were detected in the aqueous humor and vitreous humor following six topical applications of 0.25% polymyxin B, one every 10 minutes.

**Warning**

Do not use in hypersensitivity patients.

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