**EFFECTIVENESS AND SAFETY OF TOPICAL INSULIN EYE DROPS IN THE TREATMENT OF SUPERFICIAL OCULAR LESIONS**

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**BACKGROUND AND IMPORTANCE**

Insulin can be an **effective treatment for corneal epithelial** injuries due to insulin-like growth factor-1 is an important modulator of corneal wound healing, acting synergistically with substance-P.

**AIM AND OBJECTIVES**

To evaluate the effectiveness and safety of the off-label use of insulin as eye drops in magistral formula (MF) for the treatment of superficial ocular lesions.

**MATERIAL AND METHODS**

- Multidisciplinary, prospective and descriptive study.
- January 2020 - September 2021.
- Variables collected: age, sex, previous treatments, diagnosis and adverse reactions (AR).
- Eye drops formulation of insulin 1UI/ml
- Dosage regimen → 1 drop every 8 hours.

**RESULTS**

33 patients included (54±16 years)

- Prior conventional treatment:
  - Artificial tears (100%) 
  - Autologous serum (75.8%)
  - Cyclosporine eye drops (48.5%)

- 195 dispensations (5.9±4 dispersions/patient):

- Prescribed indication: severe dry eye (60.8%) and corneal ulcer (9.1%).
- Effectiveness → 84.9% good evolution vs 15.1% without improvement.
- AR → 5 patients discontinued treatment (intolerance (1/5), poor adherence (2/5) and lack of efficacy (2/5)).

**CONCLUSION AND RELEVANCE**

Insulin eye drops could be considered a treatment option for superficial ocular lesions based on the high effectiveness and good tolerance reported. Most of the patients presented good clinical evolution and a low rate of AR.