CACICOL®, A NEW THERAPEUTIC APPROACH TO THE MANAGEMENT OF PERSISTENT EPITHELIAL DEFECTS AND NEUROTROPHIC KERATOPATHY

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Purpose: Neurotrophic keratopathy (NK) is a degenerative disease of the corneal epithelium resulting from impaired corneal innervation, possibly leading to perforation. We aimed to assess the efficacy of the so-called “ReGeneraTing Agents” (RGTA\textregistered), CACICOL®, mimicking heparan sulfates, for the management of NK and Persistent Epithelial Defects (PED). Methods: We carried out an uncontrolled, prospective, single-centre clinical study on five patients (five eyes), between 48 and 65 years old, with chronic corneal NK and PED of different etiology, despite the use of hypoosmolar, preservative-free artificial tears and topical anti-inflammatory drugs, for at least 3 months. All patients were treated with CACICOL®, at a dose regimen of one daily drop every 2 days for 1 to 3 weeks. Evolution and follow-up during treatment were evaluated by slit-lamp examination, photography, fluorescein-dye testing and best corrected visual acuity. Results: All patients displayed complete corneal healing. Total re-epithelization occurring after a mean period of 4.6 weeks within a period of two to twelve weeks. Mean ulcer area decreased significantly, from 12.17\% to 7.49\% (P=0.049) in the first week, and 12.17 to 1.93\% (P=0.008) at one month. At the end of the study, none of the patients displayed significant improvement in visual acuity. There were no systemic or local side effects of treatment. Conclusions: CACICOL® seems to be a potentially useful, alternative, non invasive therapeutic approach in neurotrophic keratopathy and Persistent Epithelial Defects management. However, randomized studies are necessary.