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Journal of Clinical and Experimental Ophthalmology

Short Communication

Treatments for Dry Eye Disease: A Comparison Analysis

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ABSTRACT

Dry eye Disease (DED) effects up to 30% of the global population (2.25 Billion people) and this inflammatory condition of ocular surfaces has symptoms of visual disturbances, eye discomfort, tear film instability, etc. In the United States the average cost of treating this anomaly is over $6,500 with incidence rate of up to 20 million patients. This meeting will discuss three primary treatments of Cyclosporine 5%, Lifitegrast, and studies showing significance and differences between these treatments. A recent Systematic Review with meta-analysis was conducted on studies of Topical Cyclosporine 5% (Restasis®; Allergan, Inc., Irvine, CA). The 12 studies (mean 25 weeks) included 629 subjects receiving treatment of Restasis. The outcome measure shared between these studies was the Schirmer #1 test and the mean score reduction was 2.7 mm. A retrospective case/control study was conducted, measuring efficacy of Lifitegrast (Xiidra® Shire, Inc. Lexington, MA) versus other treatments in over 2,000 eyes. The mechanism of action is different than Cyclosporine because Lifitegrast reduces ocular inflammation as an integrin antagonist that blocks binding of ICAM-1 to LFA-1 on the T-cell surfaces. Testing in this investigation was accomplished with Schirmer's tests, Corneal staining, and tear film Break Up Time (tBUT) in different sub populations. Even with different testing mechanisms, these Lifitegrast patients showed significant changes, particularly in short-term follow ups.

Keywords: Dry eye Disease; Restasis; Lifitegrast

PURPOSE

The purpose of this meeting is to examine and discuss the evidence-based comparisons of the current treatments for Dry Eye Disease (DED).

INTRODUCTION

Dry eye Disease (DED) effects up to 30% of the global population (2.25 Billion people) and this inflammatory condition of ocular surfaces has symptoms of visual disturbances, eye discomfort, tear film instability, etc. In the United States the average cost of treating this anomaly is over $6,500 with incidence rate of up to 20 million patients. This meeting will discuss three primary treatments of Cyclosporine 5%, Lifitegrast, and studies showing significance and differences between these treatments [1-9].

A recent Systematic Review with meta-analysis was conducted on studies of Topical Cyclosporine 5% (Restasis®; Allergan, Inc., Irvine, CA) [10-14]. The 12 studies (mean 25 weeks) included 629 subjects receiving treatment of Restasis. The outcome measure shared between these studies was the Schirmer #1 test and the mean score reduction was 2.7 mm [15-19].

A retrospective case/control study was conducted, measuring efficacy of Lifitegrast (Xiidra® Shire, Inc. Lexington, MA) versus other treatments in over 2,000 eyes. The mechanism of action is different than Cyclosporine because Lifitegrast reduces ocular inflammation as an integrin antagonist that blocks binding of ICAM-1 to LFA-1 on the T-cell surfaces. Testing in this investigation was accomplished with Schirmer's tests, Corneal staining, and tear film Break Up Time (tBUT) in different sub populations. Even with different testing mechanisms, these Lifitegrast patients showed significant changes, particularly in short-term follow ups [20-29].

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Received: August 11, 2020; **Accepted:** August 25, 2020; **Published:** September 01, 2020

Citation: Willis BF, Thomas JW, Vital MC, Zaman F, Goosey JD (2020) Treatments for Dry Eye Disease: A Comparison Analysis. J Clin Exp Ophthalmol. 11:857. DOI: 10.35248/2155-9570.20.11.857

CLINICAL RELEVANCE

Presentation

The presentation we are proposing is a 90-minute session led by panel of physicians and scientists. The target audience includes physicians who treat DED [30-33]. The initial 30 minutes presentation will include the pathological overviews of the underlying diseases or conditions which cause DED.

- Keratoconjunctivitis Sicca
- Lacrimal gland dysfunction
- Primary aqueous tear deficiency
- Sjögren's syndrome
- Meibomian Gland Disease, Blepharitis
- Graft host disease
- Exposure keratopathy
- Post-surgical effects (including Post-LASIK or Photorefractive Keratectomy)
- Post-contacts lens wear

Lecturers will then discuss research on efficacy and differences between the current treatments of Cyclosporine 5%, Lifitegrast 5%, Punctum Plugs, and other treatment methods. The topic will discuss the differential analysis between these treatments. Research has shown unique outcomes and differences between the three primary treatments, including the combined therapy of Cyclosporine with Plugs [34,35].

Prospective Funding will come from Shire Pharmaceutical and Allergan Pharmaceutical [36-48]. The unique feature this symposia is that it will be presented as an evidence-based comparison of treatments and outcomes from the current standard of care treatments for Dry Eye Disease. Our dates for this oral presentation are flexible according to your needs.

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