Evaluation of clinical response to treatment with FDA-cleared Avenova (i-Lid Cleanser) in patients with blepharitis in an optometric practice

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Introduction

• Blepharitis: A common eyelid disease with a chronic inflammatory condition, difficult to treat due to patient’s non-compliance and lack of proper therapeutic treatment options. Blepharitis is one of the most common eye disease seen by Ophthalmologists and Optometrists, nearly 37% to 47% of patients has evidence of blepharitis1.

• There is no consensus on treatment or current FDA approved drug products specific for blepharitis. As a result lots of traditional therapies are used to unsuccessfully treat this condition.

• A review of recent clinical trials has summarized the use of topical antibiotics, oral antibiotics and topical corticosteroids to treat blepharitis2 However, in chronic diseases such as blepharitis long-term use of such treatment options increases the risk of bacterial resistance and steroid related secondary issues.

• Therefore, a mild form of treatment, which is both effective and easy to use with high patient compliance and low side effects is highly desirable.

• Authors explored if Avenova™ can be effective in treating various stages of blepharitis.

Purpose

• The purpose of this study was to evaluate the efficacy, patient’s compliance and tolerability of FDA cleared Avenova™ (i-Lid Cleanser; Novellay Pharmaceuticals Inc., Eneryville, CA) in patients with mild to moderate blepharitis.

Materials and Methods

• Patients with signs and symptoms of mild to moderate blepharitis were treated with FDA cleared Avenova™ (i-Lid Cleanser).

• A total of 18 patients with mild to moderate blepharitis were treated with Avenova™ twice daily for two weeks according to manufacturer’s guidelines.

• Efficacy of treatment was evaluated based on slit lamp biomicroscopic examination and assessment of clinical signs and symptoms. These observations were compared pre-Avenova™ treatment (day 0) and post-Avenova™ treatment at 2 weeks (day 14±1).

• Signs and symptoms: following signs and symptoms were used to diagnose severity of blepharitis and to closely monitor efficacy of the treatment.
  • Eyelid redness; eyelid debris; eyelid swelling; eyelash collarettes; eyelid irritation.
  • A scale of 0 to 3 was used to identify the severity and monitor the progression of blepharitis. 0-absent, 1-mild, 2-moderate, 3-severe.

• Patients with a total score of ≥8 were categorized as mild blepharitis group (G1)

• Patients with a total score of >12 were categorized as moderate blepharitis group (G2)

• Patients with scores higher than 12 were not included in this study.

• Patient compliance, tolerability and ease of use was assessed based on patient’s feedback.

• Avenova™ contains a novel pure 0.01% hypochlorous acid in a 0.9% saline solution at pH 4 (Neutrox™) (Figure 1).

• Directions for use (package insert): Apply Avenova™ as an eyelid skin cleanser starting 1 week prior to intracutaneous surgery. Also use Avenova™ to clean lids and lashes to remove debris from lid margin.

• Remove any makeup around your eyes.

• Apply 2-3 sprays of Avenova™ to a 100% sterile cotton round or oval swab.

• Close your eyes.

• Using a horizontal (H) motion, gently wipe the base of all the upper lid lashes at least three times.

• With eyes open, look up and wipe the base of the lower lashes with a ½-⅔ motion at least three times.

• Gently clean the entire lower lid from nose to the side of the nose.

• With a two cotton swabs, wipe on the other eye.

• Repeat twice daily or as needed/recommended.

Figure 1. Avenova™ (i-Lid Cleanser) Rx Only

Results

• Score improvement: 100% of patients with mild blepharitis (n=10) improved score by at least one point in all categories. However, in group with moderate blepharitis (n=8) there was inconsistent score improvements from one point to no point in some categories.

• Signs: Avenova™ treatment showed significant improvement in signs of blepharitis in mild blepharitis group and comparatively less improvement in moderate blepharitis group in two weeks.

• Symptoms: Avenova™ treatment showed improvement and resolution of symptoms of blepharitis in both mild and moderate blepharitis group.

• Compliance: Patient with mild blepharitis reported high compliance rate of over 95%; moderate blepharitis compliance rate was comparatively lower at about 80%.

• Ease of use: both groups (mild and moderate blepharitis) reported 100% ease of use, post-application comfort and relief of symptoms with the use of Avenova™.

Conclusions

• Authors believe results are very encouraging in group of patients with mild blepharitis.

• Avenova™ treatment showed significant improvement in sign and symptoms of mild blepharitis.

• However, patients with moderate blepharitis needed long-term treatment (4-5 weeks) to achieve similar effect.

• Patient compliance was high (>95%) in mild blepharitis group, however in moderate blepharitis group patient compliance was comparatively lower (80%) and may in part explain the need for extended treatment or combination therapy.

• Studies are underway to increase study subjects in each group, especially in group with moderate blepharitis to determine the efficacy and duration of treatment to effectively treat moderate blepharitis.

• Source: Blepharitis group still to be included in final further study prescription.

Disclosures

• G. Sharma, Optometrist, Family Eye Care Optometry; Assistant Professor, College of Optometry, Western University of Health Sciences.

• M. Sharma, Assistant Professor, College of Optometry, Western University of Health Sciences.

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References
