

PROGRAM & ABSTRACTS

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עריכת התוכנית: פרופ' רות אשרי-פדן, פרופ' ניצה גולדנברג-כהן, פרופ' אירית בכר, פרופ' דרור שרון



הפקת הכינוס:

עיצוב והבאה לדפוס: דבורה מרקס אוחנה

Topical Dipyridamole for Treatment of Pterygium and Associated Dry Eye Symptoms: Analysis of User-Reported Outcomes

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Purpose: A recent review article (Rogosnitzky et al.) demonstrated the benefits of dipyridamole in treating various posterior segment eye disorders. Pterygium, a proliferative disorder, is associated with viral causation (HPV), oxidative damage (UVB radiation), overexpression of VEGF, MMP9, and is usually accompanied by dry eye symptoms. Dipyridamole possesses multiple therapeutic mechanisms including, inhibition of viruses, VEGF & MMP9, and anti-proliferative and anti-oxidant properties, thereby having applicability in both pterygium and its associated dry eye symptoms. Following a case report (Carlock et al.) demonstrating pterygium regression through topical administration of dipyridamole, ophthalmologists have begun prescribing dipyridamole eye drops prepared by compounding pharmacies. Our aim was to analyze data provided directly by patients in order to assess subjective symptomatic improvement and objective pterygium regression.

Methods: Fifty patients participated in a baseline symptom survey that included the Ocular Surface Disease Index (OSDI). Of these, 25 patients participated in follow-up, providing comparison survey data. Photographs were provided by some patients and were visually assessed for indicators of change.

Results: The maximum percent change achieved from baseline OSDI severity scores during the course of treatment was a reduction of 52.4% (+/- 27.5). [Mean OSDI scores were 37.7 (+/- 20.2) at baseline and 18.7 (+/-15.2) at maximum response.] Treatment endpoint (at time of data analysis) averaged 137 (+/-95) days. Visual inspection of photos revealed marked anti-angiogenic and anti-hyperemic benefit, resulting in thinning out and/or regression of pterygium tissue.

Conclusions: Significant improvement in OSDI scores was achieved, as well as marked photographic evidence of pterygium regression, demonstrating promise for topical dipyridamole in treating pterygium. The topical dose being used is very small, at a ratio of approximately 1:25,000 of the standard daily oral dose of this drug. Insignificant systemic absorption, if any, would be expected from such a low topical dose. In comparison, the ocular/oral ratio of ophthalmic drugs is usually much higher, as with Restasis® (cyclosporine) at 1:400 and Vigamox® (moxifloxacin) at 1:700. Clinical trials are necessary to confirm these benefits, clarify the precise mechanisms of action and identify conditions that may benefit most from this novel treatment.