What are the Effects of Topical N-Acetylcarnosine [eye drops] on Cataract-Inhibited Vision in an Elderly Subject? - A Case Report

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Author(s): Misner B

Abstract

Introduction: Cataract onset has a limited prognosis presenting a diagnostic and therapeutic challenge. Mild cataract-inhibited vision is typically managed by Doctors of Optometry with prescription eyeglasses to manage clouding of the lens or glare. If cataracts progress, surgical correction may be recommended.

Case: A 72-year-old male presented with mild R>L cataract-inhibited vision requiring prescription eyeglasses. This patient was simultaneously examined in two separate eyewear clinics (by Doctors of Optometry) both before and after the patient self-administered 90-days solution N-Acetylcarnosine eye drops. At follow up, this patient's vision was so improved that both Optometrists concluded that new eyeglass prescriptions with lower lens strengths were necessary.

Conclusion: The effects of N-Acetylcarnosine eye-drops in this subject may be associated with reducing the prescription-strength of his eyeglasses.

Methods

The subject, a 72-year male, complained of R>L onsets of blurred vision with glare issues distorting vision. Two Optometrists determined mild onset R>L cataract formation during a routine eye exam. Visual Acuity, Ocular Motility, Refractive Error, and Binocular Slit-Lamp Examination were employed to define a corrective eyeglass prescription. Prescription reading glasses were ordered and the patient commenced using self-administered over-the-counter N-Acetylcarnosine [1%] eye drops 4-times daily, 1-2 drops per eye for 90-consecutive days. After eye-drops were administered, the patient rested in a supine position for 5-10 minutes to permit complete absorption. At the end of this 90-day treatment protocol, the patient returned for follow-up eye exams to determine changes in his vision either progression or regression. The patient, upon return for the 2nd eye exam, reported that his original prescription eyeglasses were too strong for optimal visual clarity.

Discussion

What is a cataract and how is it treated based on progression and severity? The American Optometric
Association states: "A cataract is a cloudy or opaque area in the normally clear lens of the eye. Depending upon its size and location, it can interfere with normal vision. Most cataracts develop in persons over age 55, but they occasionally occur in infants and young children. Usually cataracts develop in both eyes, but one eye may have somewhat worse vision than the other. There is no way to prevent the development of cataracts and currently the only way to treat them is to surgically remove the natural lens in the eye. When vision has decreased to the point where the patient can no longer easily and safely perform daily activities, then cataract surgery should be considered. Cataract surgery is a procedure used to remove the natural lens in the eye when it becomes clouded, and replace it with an artificial lens in order to restore clear vision. Cataract surgery is indicated when the cataract impairs vision to the extent that it interferes with normal daily activities. Cataract extraction is one of the most frequently performed surgical procedures in the world (24)"

The initial prescription eye exams performed by two clinics' Doctors of Optometry concluded that the formations of this patient's cataracts were mild and surgery was not recommended. Thus, treating cataract progression by topical N-Acetylcarnosine (1%) eye-drops presented a treatment option, and if effective, it could be evaluated by follow-up eye examinations. Two separate clinics' Doctors of Optometry performed eye examinations on this 72-year male subject both before he self-administered a 90-days topical N-Acetylcarnosine eye-drops protocol, and immediately after to determine effects (if any) on the patient’s need for prescription eyeglasses [Table I & Table II].

**Conclusion**

Both Doctors of Optometry 2nd eye examinations agreed that this patient had significant improvements in visual SPHERE (indicating the reduced lens power, measured in diopeters, prescribed to correct farsightedness (+) ranging from 12.5-25%, and improvement in visual CYLINDER (a plus sign for farsighted astigmatism) ranging from 16.6-25%). However, Doctor of Optometry #1 prescribed a reduced ADD (magnifying power) from 2.25-1.75, while Doctor of Optometry #2 recommended not changing in ADD (magnifying power) from the original 1.50-prescription. Both Doctors of Optometry concluded that 90-days after their initial eye examination that this 72-year male required new prescription eyeglasses indicating a 12.5-25% improvement in vision so-indicated by objective change in SPHERE and CYLINDER measures. While this case report is positive concerning one subject followed for 90-days, it may be stated that NO firm conclusion can be reached from the results of any single case study. Whether or not this self-administered N-Acetylcarnosine eye drops protocol may provide benefits for other patients with similar symptoms depends upon the individual patient. This conservative protocol, however, may be considered prior to invasive procedures pursued in patients diagnosed with mild post-cataract complications.

**Acknowledgement(s)**

The total costs for 8-each 2-ml containers of N-Acetylcarnosine eye drops, 6 pairs of prescription eyeglasses, 4-each prescription eye glass examinations was funded by the author with no expectation of remuneration from Doctors of Optometry or manufacturers of N-Acetylcarnosine used in this case report.

**References**

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24. The American Optometric Association @ http://www.aoa.org/x4639.xml
Illustrations

Illustration 1

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Initial Prescription Eye Examinations
Illustration 2

Table 2

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