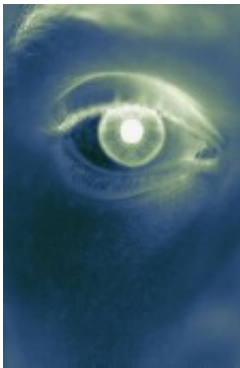


Review explores challenges of ocular antioxidants for cataracts

April 17 2015



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(HealthDay)—Delivery of antioxidants to the eye may be a therapeutic option for cataracts, but considerable challenges need to be resolved, according to a review published in the April issue of the *Journal of Pharmacy and Pharmacology*.

Hamdy Abdelkader, Ph.D., from Kingston University London, and colleagues discuss the role of antioxidants as a [therapeutic option](#) for cataracts.

The authors note that there are contradictory findings in the literature about the utility of oral antioxidant supplementation, with long-term

supplementation considered to be of limited benefit. Current research is focusing on development of advanced delivery systems for better ocular bioavailability and consequently better therapeutic outcomes. Topical ocular drug delivery is the preferred route but many anatomic and physiological barriers form part of the natural defense of the eye. Nanotechnology offers the potential of formulations that are small enough to prevent blockage of the anterior chamber, have appropriate functionalities, and can possess inherent antioxidant function or can deliver antioxidants.

"However, as thus far, oral supplementation of [antioxidants](#) has not been effective given the difficulties in delivery to the lens," the authors write. "Future directions for therapeutic measures should concentrate on effective drug delivery modes that can pass through the outer coats of the eye and through the capsule of the lens without disrupting the fluid exchange mechanism in the anterior chamber."

More information: [Abstract](#)
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Citation: Review explores challenges of ocular antioxidants for cataracts (2015, April 17)
retrieved 28 April 2024 from
<https://medicalxpress.com/news/2015-04-explores-ocular-antioxidants-cataracts.html>

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