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Crocin as a vision supplement

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Abstract

Crocin is a natural ingredient of saffron (Crocus sativus L.) flower that has shown potential for application as a supplement in eye health and preserving vision. Crocin has been examined for its potential to treat various eye diseases such as glaucoma, macular dystrophies, diabetic retinopathy, and age-related macular degeneration. This review briefly discusses the role of crocin in different eye diseases. The underlying pathophysiological pathways involved in the effect of crocin on ophthalmic diseases are also reviewed. Preclinical evidence shows the cytoprotective, antioxidative, anti-inflammatory, and blood-flow enhancing effects of crocin in retinal tissue. Crocin also affects the retinal pathologies by activating PI3K/Akt and inhibiting NF-κB signalling pathways. Clinical evidence suggests that crocin improves outcomes in patients with retinal degenerations, retinal dystrophies, and glaucoma. Overall, crocin can be suggested as a potential vision supplement in healthy populations and patients with eye diseases. However, more clinical studies with larger sample sizes and longer follow-up durations are needed to confirm the current evidence.

Keywords: Crocin; eye; natural; nutrition; retina; saffron; supplement.

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