

Omega-3 fatty acid supplementation improves dry eye symptoms in patients with glaucoma: results of a prospective multicenter study

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Dear editor

We read the article entitled “Omega-3 fatty acid supplementation improves dry eye symptoms in patients with glaucoma: results of a prospective multicenter study” by Tellez-Vazquez, with great interest.¹ The authors found omega-3 fatty acid supplementation to have very beneficial effects on symptoms and clinical findings of dry eye. We appreciate the authors’ well-organized study that contained a large number of participants.

Findings in this study show the importance of diet in dry eye syndrome. As a result of industrialization, natural eating habits have changed. Refined foods make up a large part of the diet. Thus, deficiency of essential molecules such as omega-3 is unavoidable. Elderly people especially, may have more deficiency because of potential absorption problems. Omega-3 is important for cell membrane stabilization and health of neural cells.² Deficiency of omega-3 may have a significant role in dry eye, more than estimated. We suggest that supplementation of omega-3 should be recommended to chronic dry eye patients.

Disclosure

The authors report no conflicts of interest in this communication.

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Author's reply

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Dear editor

We appreciate very much the supportive and appreciative comments of Drs Kaya and Aksoy regarding the benefits of dietary supplementation with polyunsaturated fatty acids (PUFAs) for improving dry eye symptoms, in this particular case, in patients with glaucoma using topical antihypertensive drugs. Based on a number of clinical studies on the same topic previously published in the literature, there is sufficient evidence for insistently recommending supplementation with omega-3 PUFA in patients with chronic dry eye symptoms, mainly in those not fully satisfied with the use of artificial tears free of conservatives. In intervention trials, both open-label studies with a large population of patients with dry eye symptoms,¹ and in controlled trials with smaller samples of patients presenting with dry eye syndrome either due to refractive surgery² or other causes,^{3,4} as well as in patients with primary open-angle glaucoma⁵ suffering from dry eye symptoms related to the chronic use of topical antiglaucoma medications, statistically significant improvements of dry eye signs and symptoms were consistently found in the supplemented group as compared to nonsupplemented patients or healthy controls. Moreover, the expression of cytokine markers in reflex tear samples was also significantly reduced in the supplementation group. These results have also been replicated in a double blind placebo-controlled

trial in patients with dry eye symptoms due to meibomian gland dysfunction.⁶ A statistically significant improvement in health-related quality of life⁷ among patients in the supplemented group versus controls was another remarkable finding of the trial. These observations are clinically relevant and have direct practical implications, since oral supplementation with omega-3 fatty acids has been demonstrated to be an effective and advantageous option for the relief of persistent and annoying symptoms of dry eye in a variety of ophthalmological settings.

Disclosure

The author reports no conflicts of interest in this communication.

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