Lutein improves visual function in some patients with retinal degeneration: a pilot study via the Internet.

Dagnelie G¹, Zorge IS, McDonald TM.

Abstract

PURPOSE: The purpose of this article is to examine the effects of lutein supplementation on visual acuity, central visual-field area, and subjective visual disturbances in retinitis pigmentosa (RP) and related retinal degenerations, in an international study population recruited via an Internet mailing list.

METHODS: Sixteen participants (13 with RP, three with other retinal degenerations) completed a 26-week program of lutein supplementation (40 mg/day for 9 weeks, 20 mg/day thereafter); 10 participants also took 500-mg docosahexaenoic acid (DHA)/day, vitamin B complex, and digestive enzymes. Ten participants previously taking vitamin A and/or beta-carotene continued those supplements throughout the study. Participants self-tested their visual acuity on their computer screen and their central visual-field extent on a wall chart, weekly for 14 weeks, bi-weekly thereafter.

RESULTS: Mean visual acuity improved by 0.7 dB and mean visual-field area by 0.35 dB. Improvements started 2 to 4 weeks after supplementation began, and plateaued at 6 to 14 weeks. Visual acuity gains were strongly correlated with eye color: 1.2 dB in seven blue-eyed participants, but 0.3 dB in seven dark-eyed participants. Participants who received previous supplements showed greater benefits in central visual-field area (0.55 dB) than those not receiving previous supplements (no change). No significant effects of age, sex, disease stage, or study supplement were found.

CONCLUSIONS: Short-term vision improvements after lutein supplementation--previously reported in age-related macular degeneration--also occur in RP, especially in blue-eyed individuals; vitamin A may increase visual field benefits.

Comment in
Lutein pilot study. [Optometry. 2000]

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