## The effect of an aloe polymannose multinutrient complex on cognitive and immune functioning in Alzheimer's disease.

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## Source

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## Abstract

Alzheimer's disease (AD) is a leading killer of Americans, imparts a significant toll on the quality of life of the patient and primary caregiver, and results in inordinate costs in an already overburdened medical system. Prior studies on cholinesterase inhibitors among AD patients have shown minimal amelioration of disease symptoms and/or restoration of lost cognitive functioning. The effect of improved nutrition, particularly with dietary supplements, on cognitive functioning may offer an alternative strategy compared to standard treatment. The present pilot study investigated the effect of an aloe polymannose multinutrient complex (APMC) formula on cognitive and immune functioning over 12 months among adults diagnosed with AD. Subjects participated in an open-label trial and consumed 4 teaspoons per day of the APMC. The ADAScog, MMSE, ADCS-ADL, and SIB were administered at baseline and 3, 6, 9, and 12 months follow-up. Cytokines and lymphocyte and monocyte subsets were assessed at baseline and 12 months. The mean ADAS-cog cognition score significantly improved at 9 and 12 months from baseline, and 46% of our sample showed clinically-significant improvement ( $\geq$ 4-point change) from baseline to 12 months. Participants showed significant decreases in tumor necrosis factor- $\alpha$ , vascular endothelial growth factor, and interleukins-2 and-4. CD90+, CD95+CD3+, CD95+CD34+, CD95+CD90+, CD14+CD34+, CD14+CD90+, and CD14+CD95+ decreased significantly, whereas CD14+ significantly increased. Participants tolerated the APMC supplement with few, temporary adverse reactions. Our results showed improvements in both clinical and physiological outcomes for a disease that otherwise has no standard ameliorative remedy.

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