Abstract

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Low plasma vitamin E levels in major depression: diet or disease?

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OBJECTIVE: Levels of vitamin E have been reported to be lower in patients suffering major depression, but whether this is due to inadequate dietary intake or the pathophysiology of depression is not known, and was the subject of the present study.

METHODS: Plasma vitamin E (alpha-tocopherol) was measured in 49 adults with major depression, age (mean+/-s.d.): 47+/-12 y. In a subset (n=19) usual dietary intake of vitamin E was determined by diet history.

RESULTS: Subjects had significantly lower plasma alpha-tocopherol (4.71+/-0.13 mumol/mmol cholesterol) than has previously been reported for healthy Australians, and plasma alpha-tocopherol was inversely related to depression score (by Beck Depression Inventory) (r=-0.367, P<0.009). Diet analysis indicated that 89% of subjects met or exceeded the recommended intake for vitamin E, and dietary intake was not related to plasma alpha-tocopherol level in this subset.

CONCLUSION: These findings suggest that plasma levels of alpha-tocopherol are lower in depression, but this is not likely to be the result of inability to meet recommended dietary intake. .

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