

Abstract

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The relationship between serum folate, vitamin B12, and homocysteine levels in major depressive disorder and the timing of improvement with fluoxetine.

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OBJECTIVE: The objective of the present study was to examine the relationship between serum folate, vitamin B12, and homocysteine levels and the timing of clinical improvement to fluoxetine in major depressive disorder (MDD) patients.

METHODS: A total of 110 outpatients with MDD who responded to an 8-wk trial of fluoxetine had serum folate, B12, and homocysteine measurements at baseline (prior to fluoxetine initiation). Onset of clinical improvement was defined as a 30% decrease in Hamilton Depression Scale scores that led to a 50% decrease by week 8.

RESULTS: Patients with low folate levels (≤ 2.5 ng/ml) were more likely to experience a later onset of clinical improvement than eufolatemmic patients ($p = 0.0028$). B12 and homocysteine level status did not predict time to clinical improvement ($p > 0.05$).

CONCLUSION: In conclusion, low serum folate levels were found to be associated with a delayed onset of clinical improvement during treatment with fluoxetine in MDD by, on average, 1.5 wk.

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