The effects of folic acid and pyridoxine supplementation on characteristics of migraine attacks in migraine patients with aura: A double-blind, randomized placebo-controlled, clinical trial.


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OBJECTIVE: The aim of this study was to assess the effects of folic acid alone and in combination with pyridoxine on characteristics of migraine attacks in adult migraine patients with aura.

METHODS: This double-blind, randomized placebo-controlled, clinical trial was conducted on 95 migraine patients with aura (age range 18-65 y) in Isfahan, Islamic Republic of Iran, in 2014. Patients were randomly allocated to receive folic acid (5 mg/d) plus pyridoxine (80 mg/d) or folic acid alone (5 mg/d) or placebo (lactose) for 3 mo. Characteristics of migraine attacks including headache severity, attacks frequency, duration, and headache diary results (HDRs) were obtained for each patient at baseline and at the end of the study.

RESULTS: Folic acid plus pyridoxine intake resulted in a significant decrease compared with placebo in headache severity (-2.71 ± 0.08 versus -2.19 ± 0.05; P < 0.001), attack frequency (-3.35 ± 0.09 versus -2.73 ± 0.05; P < 0.001), duration (-7.25 ± 0.17 versus -6.5 ± 0.07; P < 0.001), and HDR (-74.15 ± 0.2 versus -72.73 ± 0.1; P < 0.001). Additionally, the reduction in these characteristics of migraine attacks in the folic acid plus pyridoxine group was significant compared with the group given folic acid alone (P < 0.001). However, these beneficial effects of the combined supplement became nonsignificant for attack duration compared with the folic acid-only and placebo groups after controlling for confounders. Folic acid intake without pyridoxine did not lead to a significant decrease in characteristics of migraine attacks compared with placebo group.

CONCLUSIONS: Supplementation of folic acid with pyridoxine could decrease the characteristics of migraine attacks including headache severity, attack frequency, and HDR; however, further studies are needed to shed light on the findings of the present study.

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