Diet restriction in migraine, based on IgG against foods: a clinical double-blind, randomised, cross-over trial.

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Abstract

INTRODUCTION: It is well-known that specific foods trigger migraine attacks in some patients. We aimed to investigate the effect of diet restriction, based on IgG antibodies against food antigens on the course of migraine attacks in this randomised, double blind, cross-over, headache-diary based trial on 30 patients diagnosed with migraine without aura.

METHODS: Following a 6-week baseline, IgG antibodies against 266 food antigens were detected by ELISA. Then, the patients were randomised to a 6-week diet either excluding or including specific foods with raised IgG antibodies, individually. Following a 2-week diet-free interval after the first diet period, the same patients were given the opposite 6-week diet (provocation diet following elimination diet or vice versa). Patients and their physicians were blinded to IgG test results and the type of diet (provocation or elimination). Primary parameters were number of headache days and migraine attack count. Of 30 patients, 28 were female and 2 were male, aged 19-52 years (mean, 35 +/- 10 years).

RESULTS: The average count of reactions with abnormally high titre was 24 + /- 11 against 266 foods. Compared to baseline, there was a statistically significant reduction in the number of headache days (from 10.5 + /- 4.4 to 7.5 + /- 3.7; P < 0.001) and number of migraine attacks (from 9.0 + /- 4.4 to 6.2 + /- 3.8; P < 0.001) in the elimination diet period.

CONCLUSION: This is the first randomised, cross-over study in migraineurs, showing that diet restriction based on IgG antibodies is an effective strategy in reducing the frequency of migraine attacks