

EXAMPLES OF STATISTICAL TERMS IN CONTEXT

“The influence of a low-fat diet on incidence and severity of migraine headaches”

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Abstract

Migraine headaches are a common, debilitating syndrome causing untold suffering and loss of productivity. A review of the literature indicates that high levels of blood lipids and high levels of free fatty acids are among the important factors involved in triggering migraine headaches. Under these conditions, platelet aggregability, which is associated with decreased serotonin and heightened prostaglandin levels, is increased. This leads to vasodilation, the immediate precursor of migraine headache. A high-fat diet is one factor that may directly affect this process. This study, undertaken to evaluate the impact of dietary fat intake on incidence and severity of migraine headache, was conducted over a 12-week period on 54 previously diagnosed migraine headache patients. During the first 28 days, the study subjects recorded all food consumption in a diet diary and maintained a headache diary. At the conclusion of this 28-day baseline period, subjects were individually counseled to limit fat intake to no more than 20 g/day. A 28-day run-in period was allowed for adaptation to the low-fat diet. Results are reported on the final 28-day postintervention period. Subjects **significantly** decreased the ingestion of dietary fat in grams between baseline (**mean** 65.9 g/day, **p** < **0.0001**) and the postintervention period (**mean** 27.8 g/day). The decreased dietary fat intervention was associated with **statistically significant** decreases in headache frequency, intensity, duration, and medication intake (all **p** < **0.0001**). There was a **significant** positive **correlation** between baseline dietary fat intake and headache frequency ($r = .44$, **p** = **0.02**). This study indicates that a low-fat diet can reduce headache frequency, intensity, and duration and medication intake.