Diamine Oxidase as a triggering factor for migraine

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Introduction: Migraine is considered one of the most frequent secondary headaches. There are different ethiopathogenic theories, including the alimentary one. Histamine has a high presence in diet and the capacity to degrade it is different in each subject. It is determined by an enzyme called diamine oxidase (DAO). Our purpose is to measure the activity of this enzyme in patients suffering migraine.

Patients and methods: Those patients meeting the International Headache Society criteria for the diagnosis of migraine are included. Patients range from 18 to 65 years old, and they should give informed consent to take blood samples. Deficient activity of DAO is considered to be under 80 HDU/mL.

Results: From July to October 2011, 40 patients have been recruited, of which 38 (80%) were women. 38 of them (95%) had decreased DAO activity. The average activity was 57.41 ± 7.86 HDU/mL. The average age was 39.06 ± 10.82 years old.

Conclusions: There is a high prevalence of DAO deficiency in migraneous patients. Diamine oxidase supplementation may open new avenues for research in the treatment of migraine.