

Genetics of headache and catechol-O-methyltransferase gene polymorphism

Published online: 26 April 2006

Headache is a common symptom, and can result from a variety of factors. Migraine is one of the most important types of headache, with its distinct pathophysiology, which has not been illuminated yet. However, it is apparent that there is a genetic predisposition to migraine and much work has been performed to understand the genetic basis of this disease [1–4].

In the study by Hagen and coworkers, association between headache and Val158Met polymorphism in the catechol-O-methyltransferase (COMT) gene was investigated [5]. One of the most important features of this study is inclusion of a huge number of patients as well as control subjects, which makes the results reliable. This study is of utmost important for our understand-

ing of the significance of COMT gene polymorphism both in migraineurs' and non-migraineurs' headaches. In addition, it is apparent that genetic predisposition to headache may differ between males and females. It is also apparent that the genetic basis of migraine and non-migraine headache is different, which will promote studies on genetic bases of headache. Understanding the molecular differences between different types of headache will change the way that we treat patients.

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