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Analysis of Physical Activity Intensity, Alexithymia, and the COMT Val 158 Met Gene Polymorphism

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ABSTRACT The researchers investigated the relationship between intense training, the catechol-O-methyltransferase (COMT) Val108/158Met gene polymorphism, and alexithymia. Eighteen female and 77 male athletes were included. The Toronto Alexithymia Scale (TAS) questionnaire and polymerase chain reaction method were used to evaluate alexithymia and the COMT gene Val108/158Met polymorphism, respectively. Fifteen (15.8%) subjects were evaluated as alexithymic and 80 (84.2%) were non-alexithymic according to the TAS. The COMT Vall08/158 Met gene polymorphism frequencies were as follows: 17.9% Met/Met, 50.5% Val/Met, and 31.6% Val/Val. No difference were observed among training intensity, the COMT Vall08/158 Met gene polymorphism, and alexithymia($p > 0.05$). However, 60% of the alexithymic subjects trained intensively and only 6.7% trained lightly. Intensive and light training rates for non-alexithymic athletes were 46.3% and 20%, respectively. The Val/Val and Met/Met genotyping rates for athletes engaged in intensive training were 32.6% and 29.3%. In conclusion, no significant relationship was observed among TAS scores, the COMT gene polymorphism, and training intensity.