Dipeptidyl peptidase IV and adenosine deaminase activity - Decrease in depression

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Abstract

Dipeptidyl peptidase IV (DPPIV) and adenosine deaminase (ADA), two T cell associated enzymes, are known to have a possible interaction and play essential roles in immune system functioning. On the other hand, depression has been shown to be accompanied with some immune-inflammatory alterations. In this regard, in order to make a contribution to the understanding of the ongoing immune disturbances in depression, serum DPPIV and ADA activities were determined in minor and major depressives and compared with healthy controls. Both enzyme activities were found to be decreased in major depressives compared to controls while only DPPIV activity was significantly lower in major depressives than the minor depressives. There were significant inverse relationships between enzyme activities and the severity of depression. Moreover, a positive intracorrelation was found
between decreased DPPIV and ADA levels. The correlated decrease in DPPIV and ADA, might be a further support for their possible association. Results also suggest that decreased enzyme activities might reflect the impaired immune state in depression while major depressed patients might have a greater tendency to immune dysfunction than the minor depressed ones.

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