

عنوان مقاله:

Increased Levels of Acetylcholinesterase, Paraoxonase 1, and Copper in Patients with Moderate Depression- a Preliminary Study

محل انتشار:

مجله گزارش های بیوشیمی و زیست شناسی مولکولی، دوره 7، شماره 2 (سال: 1397)

تعداد صفحات اصل مقاله: 7

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خلاصه مقاله:

Background: Depression is a common and widespread mood disorder, which affects an emotional level that varies widely in its intensity. Biochemical parameter alterations have been observed in different depression types. In the present study, we examined acetylcholinesterase (AChE), paraoxonase 1 (PON1), and copper levels in moderately-depressed patients and healthy controls to ascertain whether the measurement of red blood cell (RBC) AChE, and plasma PON1 and copper could be used to evaluate moderate depression. **Methods:** This case control study was performed in the Department of Biochemistry, Kasturba Medical College, Manipal Academy of Higher Education, Manipal, Karnataka, India. Patients who met ICD 10 diagnostic criteria were considered as cases. Goldberg's General Health Questionnaire 28 (GHQ-28) was used to select controls. Four ml of blood was collected from 24 cases and 20 controls aged 35-70 years and used to determine RBC AChE, and plasma PON1 and copper levels. **Results:** Red blood cell AChE, and plasma PON1 and copper levels were significantly greater in patients with moderate depression than in controls. Further, a receiver operating characteristic curve for validity of the biochemical parameters in plasma from patients with moderate depression indicated sensitivity and specificity above 85% for copper and PON1. **Conclusions:** Red blood cell AChE, plasma PON1, and copper levels may have roles in the pathogenesis of depressive disorders.

کلمات کلیدی:

.Acetylcholinesterase, Copper, Moderate Depression, PON1, Stress

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