Development for Emotional Stroop Task of Japanese Version and Validation of the Clinical Utility

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Abstract: In psychiatry, the diagnosis and evaluation of symptoms is usually done by observation, however, an objective evaluation method is needed. The Emotional Stroop Task is one of the objective evaluation methods and it enables to express the emotional bias numerically. The Emotional Stroop Task is a neuropsychological test which takes advantage of the fact that when multiple information is processed, the interference time is extended considerably longer in the case of threat stimulus as compared to neutral stimulus. In this study we examined new patients with mood disorders and anxiety disorders by the Emotional Stroop Task and by an interview method. Then we investigated the relative between the Emotional Stroop Task and the methods. In the case of a neutral-word condition of the Emotional Stroop Task we showed each patient a neutral word as a stimulus and in the case of a threat-word condition, we showed a threat word. We defined the emotional interference time as the difference between the reaction time of a threat word condition and that of a neutral word condition. We proved a statistically significant positive correlation between the emotional interference time and HAM-D HAM-A. The Emotional Stroop Task enables to predict how severe depression and anxiety are, therefore it can be expect to serve as an objective evaluation method for depression and anxiety.

Key words: Emotional stroop task, Mood disorder, Anxiety disorder, Neuropsychological test