ALCOHOL CUE-REACTIVITY DECREASED VISUAL ATTENTION TASK PERFORMANCE IN ALCOHOL DEPENDENCE: THE EYE TRACKING STUDY

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Introduction. Alcohol cue-reactivity has been known to be playing an important role in relapse of alcohol dependence. We hypothesize that the alcohol cue-reactivity may make alcohol dependent patients crave alcohol visual stimuli and interfere perception and understanding facial expression emotional perception, which are crucial to interpersonal relationship and socialization.

Methods. Thirty alcohol dependent patients and thirty-one age and sex matched normal control subjects participated in this study. We used eye-tracking technique while the subjects performed the experiment. We showed both alcohol pictures and facial expression and investigated influence of the alcohol visual stimulus to perception and understanding the meaning of the facial expression.

Results. We found that alcohol dependent patients experienced difficulty perceiving and understanding the meaning of the facial expression, such as happiness, sadness, anger, and disgust. Alcohol dependent patients gazed at the alcohol picture for a longer period of time than the normal control participants.

Conclusion. Our findings suggest that cue-reactivity to alcohol dependent patients is very strong enough to interfere perception of emotions from the facial expressions. In other words, the reason why there are serious problems in social relationship in alcohol dependence may be from malfunctioning of the emotional perception caused by alcohol cue-reactivity. We suggest that the eye-tracking technique can be very useful for understanding the behavioral mechanisms of alcohol cue-reactivity. We also argue that the alcohol dependence treatment should take into consideration of alcohol cue-reactivity.