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REWARD SENSITIVITY AND RESPONSE TO TREATMENT IN MAJOR DEPRESSION

E. Vrieze¹, D. Pizzagalli², K. Demyttenaere¹, **S. Claes**³

¹*Department of Psychiatry, University of Leuven, Leuven, Belgium,* ²*Department of Psychology, Harvard University, Cambridge, USA,* ³*Department of Psychiatry, University Hospital Gasthuisberg, Leuven, Belgium*

Rationale: Anhedonia, or the lack of reactivity to a pleasurable stimuli is expressed as reduced reward sensitivity in patients with major depressive disorder (MDD) ⁽¹⁾. Reward experience might discriminate between depressed patients who responds to treatment and those who do not ⁽²⁾.

Objective: The purpose of this study was to test the hypothesis that patients non-responsive to treatment show reduced reward sensitivity compared to responsive patients.

Method: A probabilistic computer task was used to measure reward sensitivity objectively ⁽³⁾. Twenty-eight medicated inpatients meeting DSM-IV criteria for MDD performed the reward task within the first week after submission and again after eight weeks. The response to treatment was assessed with the Hamilton Depression rating Scale (HDRS). Patients with scores less than ten or a fifty percent reduction on the HDRS after 8 weeks were considered responders to treatment. Sixteen healthy subjects were recruited as controls.

Results: When considering reward sensitivity at baseline, the control group was significantly more sensitive to reward than the responders group and the non-responders group, who were the least reward sensitive ($F = 11.88$; $p < 0.01$). After 8 weeks, responders showed an almost similar reward dependence to controls on the task, however non-responders still performed significantly worse compared to both responders and controls ($F = 8.71$; $p < 0.01$).

Conclusion: These results support the hypothesis that impairment of reward responsiveness might influence response to treatment in patients with MDD.

⁽¹⁾ Keedwell et al. 2005 Biol. Psychiatry 2005.

⁽²⁾ Wichers et al. neuropsychopharmacology 2008.

⁽³⁾ Pizzagalli et al. Biol. Psychiatry 2005.