Article: EPA-1086
Topic: EPW02 - Depression 1

DORSOMEDIAL AND PRECUNEUS ACTIVATION DURING SELF REFERENTIAL PROCESSING PREDICT LONG TERM REMISSION TO AGOMELATINE IN MAJOR DEPRESSION

P. Delaveau[1], M. Jabourian[2], C. Lemogne[3], W. Choucha[4], N. Girault[4], S. Lehericy[5], J. Laredo[2], **P. Fossati**[6]

[1]CNRS USR 3246, Hôpital Pitié-Salpêtrière, Paris, France ; [2]Institut de Recherches Internationales Servier, Institut de Recherches Internationales Servier, Suresnes, France ; [3]Hôpitaux Universitaires Paris Ouest Inserm U894, Université Paris Descartes Sorbonne Paris Cité Faculté de Médecine, Paris, France ; [4]Department of Psychiatry, Pitié-Salpêtrière Hospital, Paris, France ; [5]Department of Neuroradiology Pitié-Salpêtrière Hospital, ICM CENIR CR-ICM Pierre et Marie Curie University UMR-S975 INSERM U975 CNRS UMR 7225, Paris, France ; [6]Department of Psychiatry Pitié-Salpêtrière Hospital CR-ICM Pierre et Marie Curie University, CNRS USR 3246, Paris, France

Introduction: Less than half of depressed patients achieve remission. Identification of biological markers may help clinicians to predict remission and improve patient's treatment.
Objectives: To identify brain regions whose activity during self-referential processing at baseline could predict long-term remission among patients with Major Depressive Disorder (MDD) and to investigate the brain effects of Agomelatine.
Method: Nineteen acutely depressed patients and fourteen healthy controls performed self-referential judgments on emotional pictures during two fMRI sessions: before treatment and after 6 to 7 weeks of Agomelatine in patients or one week of placebo in controls. Patients were treated during 6 months and remission was assessed (HAM-D≤7).
Results: Activation in dorsomedial prefrontal cortex (dmPFC) and precuneus, during self-referential processing at baseline, was lower in future remitters than in non-remitters and remained stable after 6/7 weeks of treatment in both groups of patients. Pre-treatment activation of dmPFC and precuneus predicted clinical remission at 6 months with a sensitivity of 100% and a specificity of 71.6%. After 6-7 weeks of Agomelatine, the brain activation of MDD patients during self-referential processing was normalized i.e. decrease in the excessive activation of the dorsolateral prefrontal cortex and increase in the ventral anterior cingulate cortex activation.
Conclusions: Pre-treatment activation of precuneus and dmPFC during self-referential processing appears to be a valid predictor of clinical remission. Such results are consistent with the idea that cortical midline structures activity may play a major role in treatment outcome of MDD and may help developing biomarkers-based treatment of MDD.

https://doi.org/10.1016/S0924-9338(14)78364-6 Published online by Cambridge University Press