EFFECTS ON COGNITIVE FUNCTION IN TREATMENT RESISTANT BIPOLAR DEPRESSION: ECT COMPARED TO ALGORITHM BASED PHARMACOLOGICAL TREATMENT

U. Kessler[1,2], *H.K. Schoeyen*[2,3], *O.A. Andreassen*[4,5], *G.E. Eide*[6,7], *Å. Hammar*[1,8], *U.F. Malt*[9,10], *K.J. Oedegaard*[1,2], *G. Morken*[11,12], *K. Sundet*[5,13], *A.E. Vaaler*[11,12]

[1]Moodnet Research Group, Haukeland University Hospital, Psychiatric Division, [2]Department of Clinical Medicine, Section of Psychiatry, University of Bergen, Bergen, [3]Moodnet Research Group, Psychiatric Division, Stavanger University Hospital, Stavanger, [4]Division of Mental Health and Addiction, Oslo University Hospital, [5]Institute of Clinical Medicine, University of Oslo, Oslo, [6]Centre for Clinical Research, Haukeland University Hospital, [7]Department of Public Health and Primary Health Care, [8]Department of Biological and Medical Psychology, University of Bergen, Bergen, [9]Institute of Psychiatry, University of Oslo, [10]Department of Neuropsychiatry and Psychosomatic Medicine, Oslo University Hospital, Rikshospitalet, Oslo, [11]Department of Neuroscience, Faculty of Medicine, NTNU, [12]Division of Psychiatry, St. Olav's University Hospital, Trondheim, [13]Department of Psychology, University of Oslo, Oslo, Norway

Introduction: Electroconvulsive therapy (ECT) is a treatment alternative in bipolar disorder (BD) depression. Cognitive side effects are the major concern limiting its use.
Objectives: We present data from the Norwegian randomized controlled trial of ECT in treatment resistant depression in bipolar disorder.
Aims: To compare effects on cognitive function of ECT or algorithm based pharmacological treatment at the end of a six-week acute, BD depression treatment trial.
Methods: Prospective, randomised controlled multi-centre, six-week acute treatment trial. Pre- and post-treatment assessments with the MATRICS Consensus Cognitive Battery (MCCB); a neuropsychological test battery designed to be sensitive to changes in cognitive function.
Sample*:* N = 51 patients ≥ 18 years fulfilling criteria for treatment resistant BD depression (MADRS score ≥ 25).
Intervention: ECT group: Three sessions per week for up to six weeks, total up to 18 sessions, and right unilateral electrode placement. Algorithm-based pharmacological treatment group: Based on Goodwin & Jamison, 2007.
Results: Both groups showed a net gain on MCCB scores without significant differences between the study groups. Mean change in MCCB composite T-score was 4.0 (5.7) in the ECT group and 2.7 (3.6) in the pharmacological group ($F = 0.78$, $eta^2 = 0.021$, $p = 0.383$).
Conclusion: In treatment resistant BD depression ECT and algorithm-based pharmacological treatment have comparable effects on cognitive function assessed with the MATRICS.