

Comparison of Efficacy and Cognitive Side-effect Profile between Right Unilateral and Bilateral Ultra Brief Pulse ECT in Schizophrenia Patients

Dr. Sukriti Mukherjee

Junior Resident, Dept. of Psychiatry

LGBRIMH, Tezpur

INTRODUCTION

- ECT is often chosen as an augmenting agent in the treatment of Schizophrenia.[1]
- However, cognitive impairment is a common side-effect.
- It has been seen that shortening the pulse width and use of Unilateral ECT results in lesser cognitive impairment than conventional Bilateral ECT. [2]
- However Ultra Brief Pulse Unilateral ECT in Schizophrenia patients are scarce

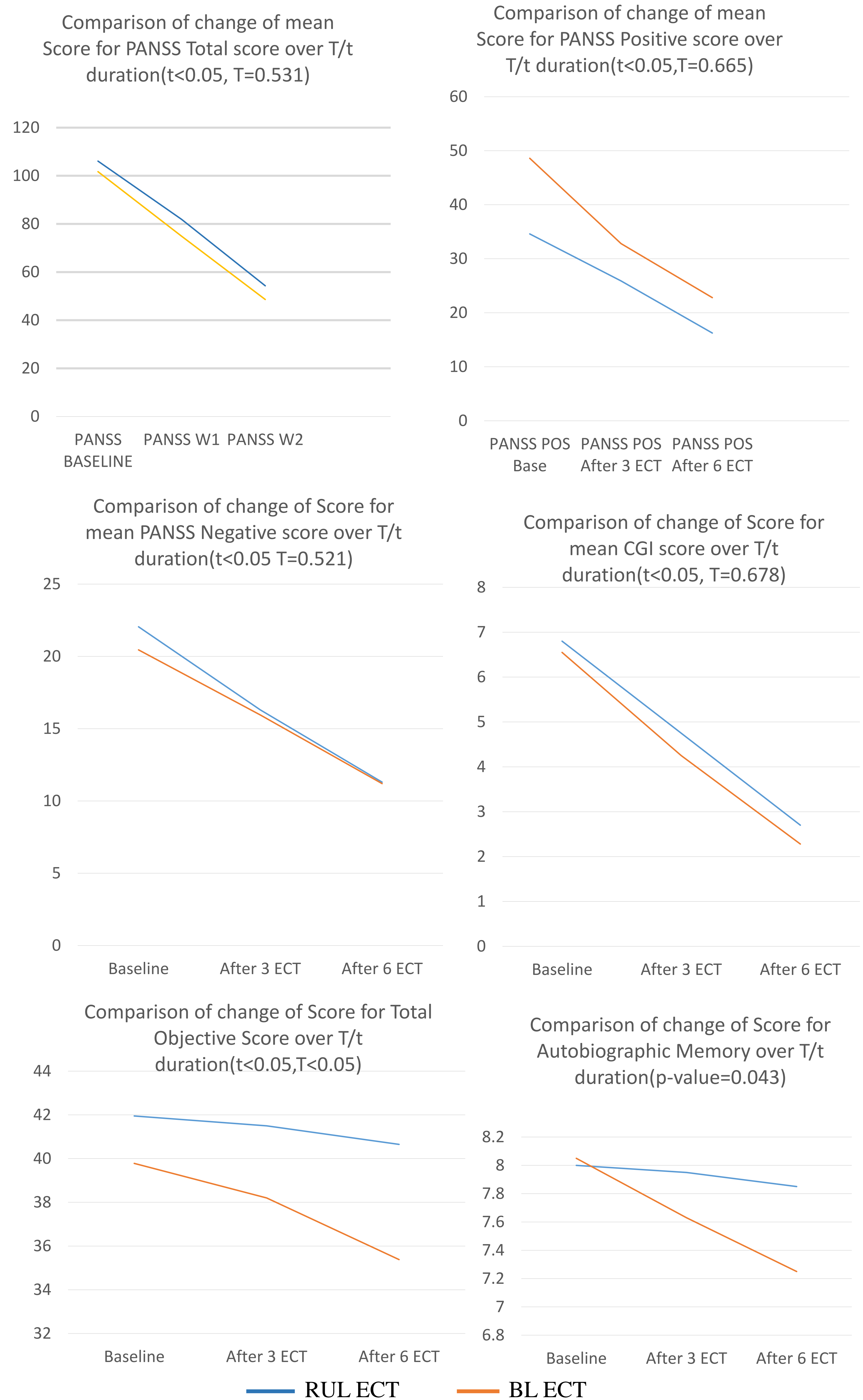
OBJECTIVES

- To Compare the Efficacy of Right Unilateral Ultra Brief Pulse ECT with Bilateral Ultra Brief Pulse ECT as measured by PANSS, CGI-S scales and Serum BDNF level.
- To Compare the Cognitive Side effect profile of Right Unilateral and Bilateral Ultra Brief Pulse ECT as measured by B4ECT-ReCoDe questionnaire

METHODOLOGY

- 1.The patients with the diagnosis of Schizophrenia who were advised of Right Unilateral ECT by the treating team, fulfilling inclusion and exclusion criteria were taken up for the study. A capacity assessment of the patient was done. Written informed consent was taken from the patient/guardian/Nominated Representative after explaining the procedure.
- 2.A detailed physical examination was done to rule out any neurological disease. Socio-demographic data were collected by a semi-structured Performa.
- 3.For the control group patients with the diagnosis of Schizophrenia who was advised Bilateral ECT by the treating team, similar procedures were followed..
- 4.For the Right Unilateral ECT group, a threshold stimulus was determined by following the protocol devised by spECTrum ULTRABRIEF© (MECTA) in the first session. The dose was hiked to 6 times the threshold from the subsequent sessions. The criterion for an adequate seizure was at least 20 s of tonic-clonic movement
- 5.For the Bilateral ECT group, threshold stimulation was determined by the protocol devised by spECTrum ULTRABRIEF© (MECTA) in the first session. The dose was hiked to 2.5 times the threshold from the subsequent sessions
- 6.PANSS, CGI & B4ECT-ReCoDe scale was administered in the baseline, at the end of 3 ECTs and again after the 6 sessions.
7. Baseline Serum BDNF level was accessed and after a total of 6 sessions of ECT again Serum BDNF level was assessed for the immediate post ECT period
8. Results were analysed using appropriate statistical methods.

RESULTS



CONCLUSION

Based on the results of our study, we conclude that Right Unilateral Ultra-Brief Pulse ECT is equally effective as Bilateral Ultra-Brief Pulse ECT with the advantage of a better Cognitive Side Effect profile. Currently, Right Unilateral Ultra-Brief Pulse ECT is not much used in the management of Schizophrenia, but it can be used vastly in the future.

References

1. Grover, S., Sahoo, S., Rabha, A., & Koirala, R. (2019). ECT in schizophrenia: A review of the evidence. *Acta Neuropsychiatrica*, 31(03), 115–127. <https://doi.org/10.1017/neu.2018.32>
2. Bansod, A., Sonavane, S. S., Shah, N. B., De Sousa, A. A., & Andrade, C. (2018). A Randomized, Nonblind, Naturalistic Comparison of Efficacy and Cognitive Outcomes With Right Unilateral, Bifrontal, and Bitemporal Electroconvulsive Therapy in Schizophrenia. *The Journal of ECT*, 34(1), 26–30. <https://doi.org/10.1097/YCT.0000000000000454>