# ELECTROCONVULSIVE THERAPY FOR SEVERE DEPRESSION IN NEUROPSYCHIATRIC LUPUS

PONTIFICIA Universidad Católica de chile

J. Libuy<sup>1</sup>, <u>R. Tagle<sup>1</sup></u>, D. Couble<sup>1</sup>, J. Alarcón<sup>2</sup>, A. Castillo<sup>2</sup>. <sup>1</sup>Pontificia Universidad Católica, Psiquiatría, Santiago, Chile. <sup>2</sup>Hospital Clínico Metropolitano Dra. Eloísa Díaz, Salud Mental, Santiago, Chile.

### **OBJECTIVES**

Systemic Lupus Erythematosus (SLE) may have serious neuropsychiatric complications. The role of electroconvulsive therapy (ECT) in these cases has not been established. Here we illustrate the case of a patient with severe depression and psychotic symptoms associated with SLE.

### BACKGROUND

SLE neuropsychiatric complications include psychosis and depression. These are managed by treating the underlying illness, although ECT could have an impact in refractory cases.

There are scarce case reports that describe treatment of neuropsychiatric SLE with ECT.

## **MATERIALS AND METHODS**

Case report. A 49-year-old female patient, in treatment for SLE and major depressive disorder, presented with a two-week history of depressed mood, delusional ideas of guilt and paranoia, and catatonic symptoms. Laboratory revealed normal blood count, renal, hepatic and thyroid function. Normal CSF analysis. Autoimmune panel positive for lupic anticoagulant and anti-beta2-glycoprotein I antibodies. Normal brain CT.

Treatment initiated with prednisone, cyclophosphamide, benzodiazepines, venlafaxine and olanzapine. Catatonic symptoms remitted but depressive and psychotic features persisted so ECT was indicated.

#### RESULTS

The initial acute phase consisted of 9 treatments of right unilateral (RUL) brief pulse width (0.3 ms) ECT using MECTA spECTrum 5000 triweekly. RUL ECT was chosen due to its lower risk of cognitive side effects. Propofol was used for anesthesia induction (100-120 mg), followed by succinylcholine (80-100 mg) for muscle relaxation.

The patient was treated at 230 mC (6x seizure threshold) for six sessions. Sessions seven through nine were conducted at 268 mC. Due to lack of response, a switch from RUL to bilateral treatment was made with further 3 sessions (final charge of 576 mC). Seizure durations averaged 21 seconds.

The primary efficacy outcome measure was the CGI-Efficacy Index. Pre-ECT CGI-SI score was 6 (severely ill) and post-ECT CGI-I was 4 (no improvement).

## CONCLUSIONS

This case suggests that ECT has a poor impact in the treatment of severe depression with psychotic features in SLE, although future investigation is warranted.

#### References

- Kivity S, Agmon-Levin N, Zandman-Goddard G, Chapman J, Shoenfeld Y. Neuropsychiatric lupus: a mosaic of clinical presentations. BMC Medicine. 2015;13(1).
- Schwartz N, Stock A, Putterman C. Neuropsychiatric lupus: new mechanistic insights and future treatment directions. Nature Reviews Rheumatology. 2019;15(3):137-152.
- Magro-Checa C, Zirkzee E, Huizinga T, Steup-Beekman G. Management of Neuropsychiatric Systemic Lupus Erythematosus: Current Approaches and Future Perspectives. Drugs. 2016;76(4):459-483.
- Tan L, Tan L. Electroconvulsive Therapy for Severe Neuropsychiatric Lupus With Psychosis. The Journal of ECT. 2013;29(3):243-246.