

# Electroconvulsive therapy in the General Hospital: A New Challenge for C-L Psychiatry Teams? Review of three patients treated at the Intensive Care Unit.

### **BACKGROUND AND SIGNIFICANCE:**

- Electroconvulsive therapy (ECT) has been shown to be an effective treatment for catatonic symptoms as stupor, mutism, withdrawal, catalepsy, among others. Indeed, including catatonia due to general medical conditions.
- Delirium might have catatonic symptoms among its clinical course. Furthermore, delirium might be refractory to treatment and lead to protracted delirium.
- The use of ECT in patients suffering from persistent or protracted and refractory delirium is still controversial.
- There are some clinical reports showing its effectivity and safety where the usual treatment for delirium has failed.

## **OBJECTIVES:**

We describe three clinical cases where ECT was used in patients with prolonged delirium that developed catatonic symptoms and did not respond to usual treatment.

|   | PATIENT 1  | PATIENT 2   | PATIENT 3   |
|---|--|---|---|
| Age   | 36 year-old  | 58 year-old   | 62 year-old   |
| Past medical history                                    | None   | None  | Psychotic depression  |
| Admission cause   | Respiratory failure due to Sars-<br>Cov-2 pneumonia  | Respiratory failure due to Sars-Cov-2 pneumonia                                   | Viral pneumonia due to Sars-Cov-2 infection   |
| Medical complications                                   | Intercurrent infections  | Intercurrent infections   | Acute Kidney Injury   |
| Neuropsychiatric complications                          | Delirium<br>Catatonic symptoms   | Hyperactive Delirium<br>Malignant catatonia                                       | Hyperactive Delirium Catatonic symptoms   |
| Medication  | Corticoids Neuroleptics Benzodiazepines Antibiotics Antipyretics   | Dexmedetomidine Clonidine Propofol Benzodiazepines Opioids Neuroleptics Memantine | Neuroleptics<br>Benzodiazepines   |
| Diagnostic tests  | Electroencephalogram (EEG): generalized diffuse slowness Total creatine kinase: 400mg/dL MRI: old frontal and occipital periventricular microbleeds Blood cultures: Enterobacter cloacae | Lumbar puncture: non-<br>inflammatory, negative<br>cultures.                      | Encephalic Magnetic Resonance: left sellar meningioma of 9mm. EEG: generalized continuous slowness Lumbar puncture: mirror oligoclonal bands, encephalitis autoimmune and meningitis panel (-), |
| Bush Francis Catatonic<br>Rate Scale (BFCRS)<br>pre-ECT | 38   | 29  | 38  |
| ECT total sessions                                      | 3  | 6   | 10  |
| BFCRS post-ECT  | 4  | 10  | 12  |

#### Authors:

Bustamante, J., Gerken, P., Castro, V., Calderón, J., Toro, P.

Department of Psychiatry, Faculty of medicine, Pontificia Universidad Católica de Chile DISCLOSURES: no disclosures

# TAKE HOME MESSAGES:

- Prolonged delirium with catatonic symptoms is associated with major mortality, cognitive impairment and other severe long term morbidities.
- ECT is a useful treatment for prolonged delirium and catatonic symptoms, it could be a life-saving treatment.
- Consultant-Liaison Psychiatry teams should be aware and able to implement ECT as soon as possible.

#### **REFERENCES:**

- Dessens FM, van Paassen J, van Westerloo DJ, van der Wee NJ, van Vliet IM, van Noorden MS. Electroconvulsive therapy in the intensive care unit for the treatment of catatonia: a case series and review of the literature. Gen Hosp Psychiatry. 2016;38:37-41. doi:10.1016/j.genhosppsych.2015.09.008
- 2. Braithwaite R. Successful electroconvulsive therapy in a patient with confirmed, symptomatic covid-19. 2020. doi:10.1097/YCT.0000000000000000
- Lupke K, Warren N, Teodorczuk A, et al. A systematic review of modified Electroconvulsive Therapy (ECT) to treat delirium. Acta Psychiatr Scand. August 2022. doi:10.1111/acps.13492
- . Nielsen RM, Olsen KS, Lauritsen AO, Boesen HC. Electroconvulsive therapy as a treatment for protracted refractory delirium in the intensive care unit—Five cases and a review. J Crit Care. 2014;29(5):881.e1-881.e6. doi:10.1016/j.jcrc.2014.05.012

Pablo Toro, Dr. med. ptoro@uc.cl