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ECT and COVID-19 in acute inpatient psychiatry: More than clinical issues alone

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Dear Sir,

Electro-convulsive therapy (ECT) is the gold standard treatment for patients with psychotic depressive disorder who have failed to respond to pharmacological therapy [1]. Yet in the context of the current COVID-19 pandemic, there is a reluctance to proceed with non-emergency ECT when it is otherwise indicated [2]. Concerns about potential risk to patients from cross-contamination within ECT departments, risk to staff from aerosol generating procedures during ECT and redeployment of ECT teams, all contribute to limiting patient's access to treatment [3]. In addition, disruptions to referring services complicate the logistics of bringing patients to treatment and further restrict the availability of ECT.

We report on the case of a middle aged man who was compulsorily admitted to our acute inpatient unit for treatment of a severe depressive episode with psychotic symptoms, and who contracted COVID-19 part way through a course of ECT. The COVID-19 crisis brought about clinical and unanticipated logistic issues which had to be addressed before his treatment could be safely completed.

Case report

A 50 year old man was admitted to our unit with symptoms of severe depression with psychosis, including alexithymia, lethargy, anhedonia, disturbed sleep, poor appetite, blunted affect and nihilistic thoughts, associated with Cotard's delusions (he believed he was already dead). He had been previously given a primary diagnosis of an emotionally unstable personality disorder,

which was associated with a history of alcohol and polysubstance misuse and recurrent depressive episodes. He also had a history of severe deliberate self-harm with multiple previous hospital admissions, both voluntarily and compulsorily. At the time of admission, he had been receiving several psychotropic medications, including quetiapine, sertraline, clomipramine and haloperidol. His physical examination on arrival was unremarkable and routine blood screen and electrocardiogram were all within normal limits.

His medication was changed to escitalopram 10mg *mane*, later increased to 20 mg *mane*, and risperidone 4mg *nocte*. In view of the severity and persistence of his symptoms, he was prescribed a course of at least 6 sessions of bilateral ECT, to be given twice a week over 3 weeks, for which he was able to give informed consent. Over the following 5 weeks, however, he received only 5 sessions of ECT as a result of unexpected changes to normal nursing care and staffing following the outbreak of the COVID-19 pandemic. On several occasions, there were not enough nurses on the ward to safely escort him to and from the ECT department. Similarly, miscommunication affecting nursing routine caused him twice not to be fasted on the morning of ECT. Despite these setbacks, his clinical presentation had ameliorated by the 4th session, with a reduction in the intrusiveness of his delusional thoughts and improved affective reactivity, thus corroborating he had responded to ECT and that this had to be continued.

Six weeks into his admission, he developed a sore throat and dry cough. Physical examination was unremarkable and physical observations (pulse, blood pressure, oxygen saturations, respiratory rate, temperature) were all within normal range. He was placed in isolation in his room and barrier nursed. A nasal and throat swab was positive for SARS-COV 2 RNA. Three

days later, he developed pleuritic chest pain and shortness of breath. Inflammatory markers and serial troponins were within normal range and there was no evidence of ischaemic changes or otherwise on an electrocardiogram. A computer tomography (CT) pulmonary angiogram showed no evidence of focal parenchymal lesions or pulmonary emboli.

He left isolation after 7 days having had no further symptoms of COVID-19 over the previous 48 hours. As he was deemed medically well and no longer contagious but was still clinically depressed, ECT was restarted the following week. A further ECT session had to be cancelled after he was involved in an incident with another patient on the day of treatment which, again, was related to nursing staff shortages.

His ECT was discontinued after a total of 7 sessions following the full remission of his depressive symptoms, including the resolution of his delusional beliefs. His pharmacological treatment was kept unchanged, and this was subsequently accompanied by a sustained improvement of his affective symptoms and engagement in ward activities.

Discussion

Our case shows that, with proper clinical monitoring and strict adherence to infection control measures [4], COVID-19 *per se* should not be a contra-indication for ECT. To minimise the risk of contagion when our patient contracted COVID-19, and to ensure he had no significant COVID-19 complications, we interrupted his course of ECT until it was safe to resume it, while continuing his drug treatment. In absence of guidelines, the decisions on whether to offer ECT to

patients with or at risk of COVID-19 should take into account the patient's medical state and the urgency of the need for ECT. The presence of COVID-19 without complications did not prevent our patient from responding successfully to ECT, which was key to his overall recovery.

In the acute setting, however, the administration of ECT is only the final step in a coordinated chain of events, from the identification of patients who are likely to benefit from it through to anaesthetic pre-assessment and pre-treatment nursing interventions on the day of the procedure, to the transport from the ward to the ECT department. Even when ECT is indicated and can be safely administered, failure in any of these preliminary steps can prevent its timely delivery, thus potentially derailing response to treatment. Our experience has shown this can happen during the COVID-19 pandemic.

To ensure timely and consistent provision of ECT for patients who require it during the COVID-19 crisis, psychiatric services must consider the impact of the pandemic on the workforce involved in every step of the treatment process. Staff shortages and disruptions both to service routines and to the preparation of patients for ECT must be anticipated and addressed early in order to safeguard continued delivery of this crucial treatment.

Patient consent: The patient consented to the anonymised disclosure of clinical information for the purpose of this report.

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