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Extracorporeal membrane oxygenation in pregnancy: a bridge to delivery and pulmonary recovery for COVID-19—related severe respiratory failure



TO THE EDITORS: The study by Yin et al¹ entitled, “Extracorporeal membrane oxygenation (ECMO) in pregnancy: a bridge to delivery and pulmonary recovery for COVID-19-related severe respiratory failure,” has been a milestone in the road to maternofetal management of severe COVID-19. Pregnancy prolongation with the aid of ECMO could successfully serve as a bridge to maternal respiratory recovery. We wish to put forth certain queries to comprehend the results better. We learned that 3 of 5 women were given convalescent plasma and that 2 of 5 women were administered tocilizumab. It would be helpful if the authors could tell us about their criteria for starting the aforementioned therapeutic regimes and which patients received them.

It will be a great favor if the authors could mention the fourth patient in a bit more detail. We noticed that she suffered a cardiac arrest while on ECMO. How many days of ECMO did she have before she experienced cardiac arrest and how was she revived? Moreover, we are quite interested to learn about patient 3 who developed hemolysis, elevated liver enzymes, and low platelet count while on ECMO despite being normotensive initially. On the contrary, patient 1, who was preeclamptic, did not develop such hypertensive complications.

Most mothers had developed postpartum mood disorders, which was quite obvious after prolonged stress. Did they require pharmacotherapy or could they be managed with psychosocial counseling? We recommend that the authors make a long-term follow-up of both the mothers and their

infants and report their long-term health status in subsequent studies. ■

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1. Yin O, Richey M, Hadaya J, et al. Extracorporeal membrane oxygenation in pregnancy: a bridge to delivery and pulmonary recovery for COVID-19-related severe respiratory failure. *Am J Obstet Gynecol* 2022;226:571–6.e5.

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Extracorporeal membrane oxygenation in pregnancy: details on novel therapies and cardiac, preeclampsia, and mood disorder complications



We thank Sarkar et al for their interest in our findings and thoughtful questions regarding therapeutics and complications in our study entitled, “Extracorporeal membrane oxygenation in pregnancy: a bridge to delivery and pulmonary recovery for COVID-19-related severe respiratory failure.”¹

Regarding therapies, 3 out of the 5 patients were given convalescent plasma and 2 out of the 5 were administered tocilizumab. The criteria for initiation of convalescent plasma treatment at our center at that time was a SARS-CoV-2 infection requiring hospitalization, and the criteria for initiation of tocilizumab was a new-onset requirement for oxygen

supplementation with the ability to start tocilizumab within 72 hours of starting oxygen supplementation.² A contraindication for tocilizumab treatment was a history of organ transplant. The patients who were given convalescent plasma were cases 1, 2, and 4 and those given tocilizumab were 1 and 5. This and additional information on COVID-19 treatment are published with Supplemental Table 1 in the final version of this article.

Patient 4 had an episode of long sinus arrest on hospital day (HD) 45, which corresponded to extracorporeal membrane oxygenation (ECMO) day 39 of 68. The ECMO circuit