

## Neuromuscular blocking agents/nitric oxide

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### Lack of efficacy: 3 case reports

In a study, three patients (two women and one man) aged 53–57 were described, who exhibited lack of efficacy during treatment with nitric oxide for hypoxaemia.

Case 1: A 57-year-old woman with a medical history of smoking and hypertension was admitted to a hospital's ICU in France 7 days after the onset of dyspnoea and headache. She was diagnosed with acute respiratory distress syndrome (ARDS) related to COVID-19. Initially, she received off-label treatment with lopinavir/ritonavir for COVID-19. Further, she developed hypoxaemia. She started receiving treatment with mechanical ventilation, unspecified neuromuscular blocking agents and nitric oxide inhalation at 10 ppm. Despite treatment with unspecified neuromuscular blocking agents and nitric oxide, her hypoxaemia persisted (lack of efficacy). After 2 days of mechanical ventilation, almitrine infusion was initiated for hypoxaemia. She also received norepinephrine. Subsequently, an improvement was noted in her respiratory status. Eventually, she was discharged, and her ICU stay was of 30 days.

Case 2: A 56-year-old woman with a medical history of dyslipidaemia and obesity was admitted to a hospital's ICU in France 11 days after the onset of dyspnoea and cough. She was diagnosed with ARDS related to COVID-19. Initially, she received off-label treatment with lopinavir/ritonavir for COVID-19. Further, she developed hypoxaemia. She started receiving treatment with mechanical ventilation, unspecified neuromuscular blocking agents and nitric oxide inhalation at 10 ppm. Despite treatment with unspecified neuromuscular blocking agents and nitric oxide, her hypoxaemia persisted (lack of efficacy). At day 6 after ICU admission, almitrine was initiated. Subsequently, an improvement was observed in her respiratory status. Eventually, she was discharged, and her ICU stay was of 32 days.

Case 3: A 53-year-old man with a medical history of obesity and rheumatoid arthritis (treated with unspecified steroids) was admitted to a hospital's ICU in France 5 days after the onset of anosmia, dyspnoea and cough. He was diagnosed with ARDS related to COVID-19. Further, he developed hypoxaemia. He started receiving treatment with mechanical ventilation, unspecified neuromuscular blocking agents and nitric oxide inhalation at 10 ppm. Despite treatment with unspecified neuromuscular blocking agents and nitric oxide, his hypoxaemia persisted (lack of efficacy). After 2 days of mechanical ventilation, almitrine infusion was initiated for hypoxaemia. He also received norepinephrine. Subsequently, an improvement was noted in his respiratory status. Eventually, he was discharged, and his ICU stay was of 31 days.

Huette P, et al. Almitrine for COVID-19 critically ill patients - a vascular therapy for a pulmonary vascular disease: Three case reports. *World Journal of Clinical Cases* 9: 3385-3393, No. 14, 2021. Available from: URL: <http://doi.org/10.12998/wjcc.v9.i14.3385>

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