

Appendix 1. Maternal Baseline Characteristics

General	Patient-1	Patient-2	Patient-3	Patient-4	Patient-5	Patient-6
Age, years	27	24	30	27	25	33
Gravida (Parity)	G1P0	G2P1	G1P0	G1P0	G3P1	G1P0
Gestational age at admission, weeks + days	18+3	29+4 (twins)	25	40	36+1	32+4
BMI, Kg/m ²	35.1	34	25.1	33.3	30.3	32
Underlying chronic disease	Obesity	Obesity	None	Obesity Sickle-cell disease	Obesity	Obesity
Known pregnancy complications	None	Gestational Diabetes	None	None	None	None
COVID-19 characteristics						
Days from onset of symptoms	7	7	7	3	3	14
Known positive SARS-CoV-2 test at admission	Yes	No	Yes	Yes	No	Yes
Days of SARS-CoV-2 positivity at admission	1	0	5	4	0	9
Disease severity by first NO administration	Critical	Critical	Critical	Severe	Severe	Critical
Respiratory Rate> 30/min	Yes	Yes	Yes	Yes	Yes	Yes
SpO ₂ < 93%	Yes	Yes	Yes	No	Yes	Yes
Oxygen supplementation (Delivery methods)	Nasal Cannula	Nasal Cannula	Nasal Cannula	Venturi Mask	Venturi Mask	Nasal Cannula
Oxygen supplementation (L/min or %)	6L/min	4L/min	4L/min	31%	24%	3L/min
Lung infiltrates> 50%	Yes	Yes	No	Yes	Yes	Yes
Severe respiratory distress	Yes	Yes	No	No	No	Yes
Shock	No	Yes	Yes	No	No	No
Multiple organ dysfunction	No	No	No	No	No	No
Maternal Outcome						
Delivered to date	No	Yes	No	Yes	Yes	No
Gestational age at delivery	-	30	36+2	40	36+1	38+2
Type	-	C-Section	Vaginal	Vaginal	C-Section	C-Section
Intubated during hospital stay	Yes	Yes	No	No	No	No
MV Duration, days	13	1	-	-	-	-
NO sessions, n	5	3	18	2	4	7
NO dose, ppm- Median [Range]	160 [160-160]	160 [160-200]	160 [160-160]	180 [160-180]	160 [160-160]	200 [200-200]
Remdesivir, days	0	7	3	0	0	0
Hospital LOS, days	25	9	12	2	6	6
ICU LOS, days	16	5	4	0	0	4
Last available SARS-CoV-2 f/u test result	Negative	Positive	Negative	Negative	Negative	Negative
Days since first positive test/NO initiation	23/16	28/28	17/9	26/22	21/21	23/14

BMI: Body Mass Index, SARS-CoV-2: Severe Acute Respiratory Syndrome Coronavirus-2, NO: Nitric Oxide; MV: Mechanical Ventilation; ICU: Intensive Care Unit; LOS: Length of Stay; IQR: Interquartile Range; f/u: follow-up. Patients were classified as Severe if they presented with respiratory rate>30 and lung infiltrates >50%, while they were classified Critical if a severe organ insufficiency, identified as Severe respiratory distress, shock, or multiple organ dysfunction occur

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The authors provided this information as a supplement to their article.

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Appendix 2. Activities of Daily Living, Mobility and Instrumental Activities of Daily Living

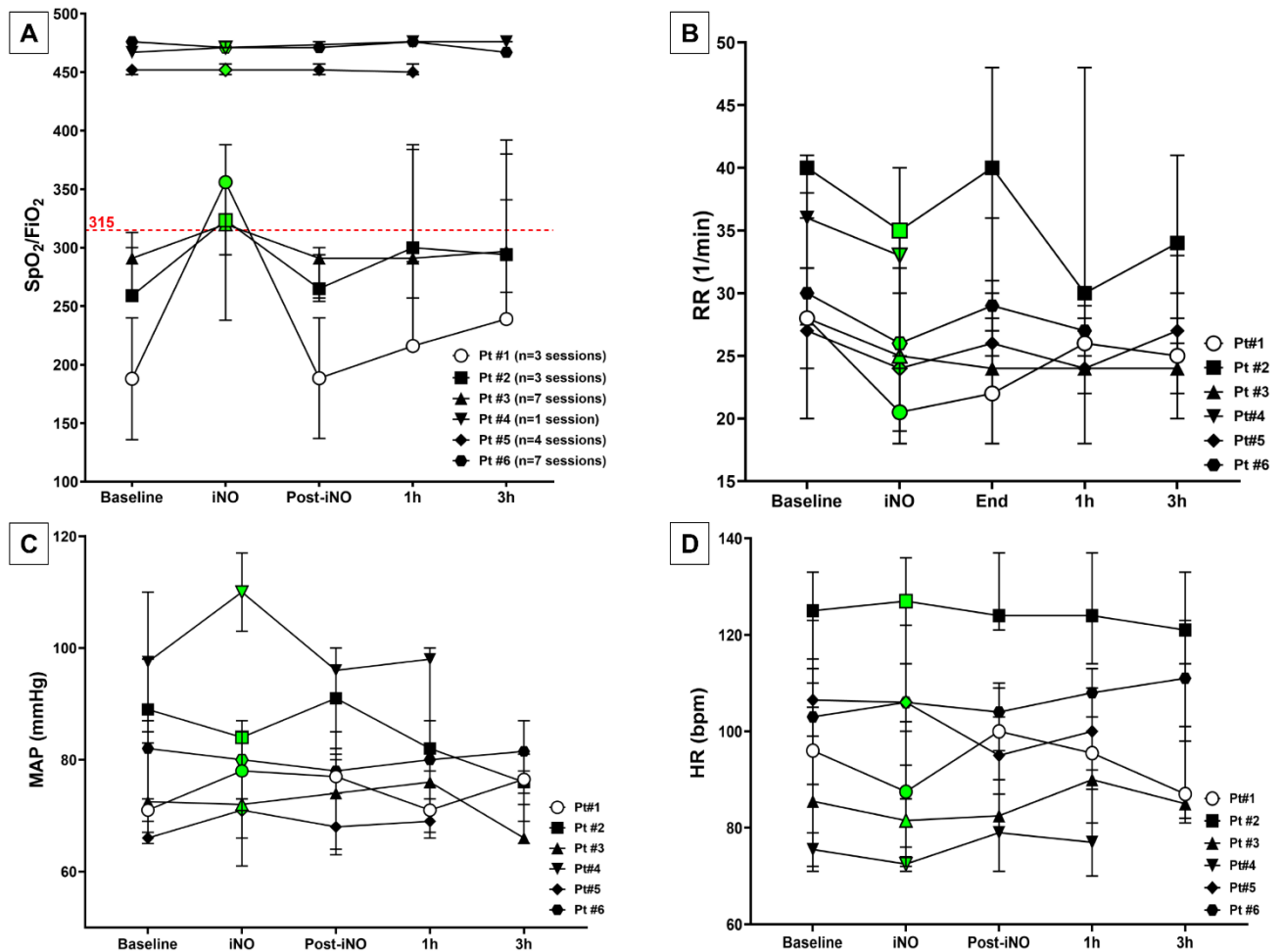
Patient #	Hospital length of stay [d]	ICU length of stay [d]	Intubation time [h]	Katz activities score at 28 days ^{1,2}
1	25	17	334	6
2	10	6	30	6
3	12	3	0	6
4	2	0	0	6
5	6	0	0	6
6	5	4	0	6

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Appendix 3. Saturation of oxygen (A), respiratory rate (B), mean arterial pressure (C) and heart rate (D) before, during and after treatment. Values are presented as median[minimum-maximum] for each patient. Baseline: before iNO initiation, “iNO”: 15-minutes into the treatment, “Post-iNO”: 5-10 minutes after the end of the treatment, “1-h” and “3h”: 1 and 3 hours after the end of NO. Green filled: during NO treatment.

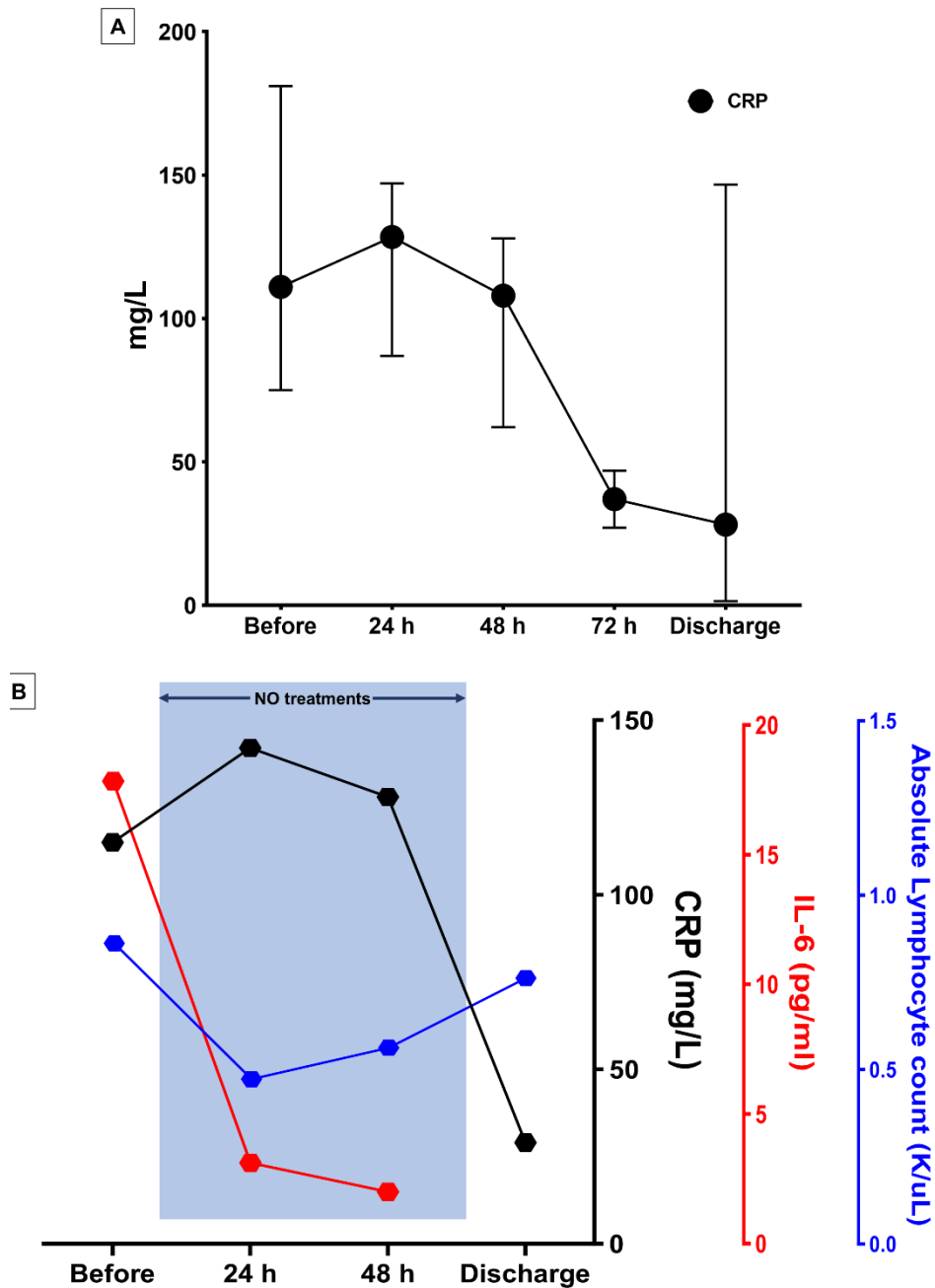


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Appendix 4. Inflammatory markers. A. C-Reactive Protein (CRP) overtime: one observation for patient. Median[minimum-maximum]. NO: Nitric Oxide. B. C-Reactive Protein (CRP), Interleukin 6 (IL-6), Lymph count of Patient#6.

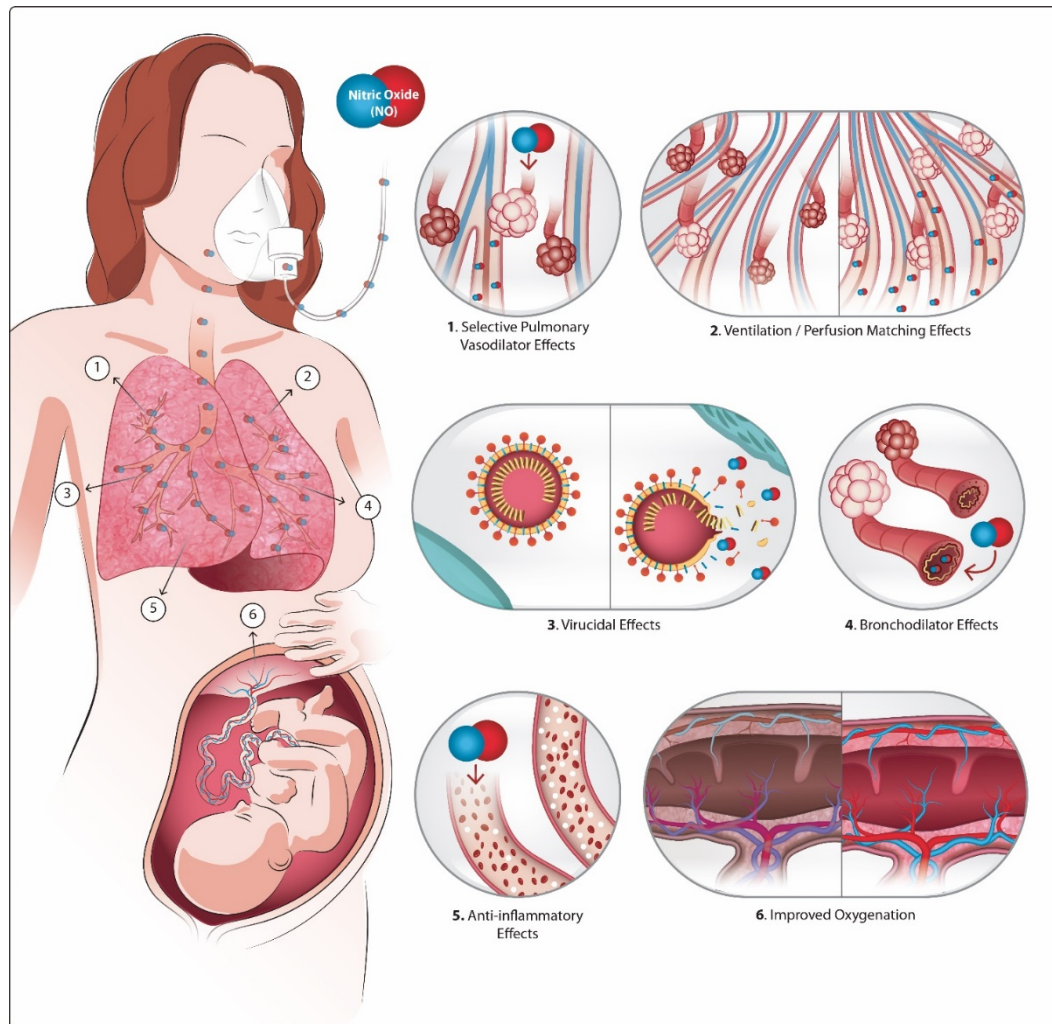


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Appendix 5. Potential beneficial mechanisms of breathing NO in pregnancy (with permission of Bruno Silva).



Up to 200 ppm of inhaled NO gas were administered to six pregnant patients with severe-critical COVID-19. NO gas has been shown previously not to be teratogenic. NO is quickly metabolized in the lungs into metabolites (i.e., mostly nitrate) and does not cause a reduction in systemic vascular resistance. In the lungs, NO gas increases right heart function by decreasing pulmonary vasoconstriction (1), improves oxygenation by improving ventilation/perfusion matching (2), kills the virus by nitrosation of the viral proteins, which prevents possible viral invasion in the placenta (3), induces bronchodilation improving ventilation (4), promotes anti-inflammation (5), and, ultimately, by raising maternal oxygenation, improves oxygen delivery to the physiologically low oxygen tension fetal circulation (6).

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