

Clinical Outcomes of Positive Newborns for COVID-19 in Rio de Janeiro, Brazil

Karina Martins-Cardoso^{1,2}, Luana Ferreira Martins de Toledo³, Juliana Aparecida Souza Paz¹, Andressa Rangel de Oliveira Lima³, Thaís Chrispim de Souza Giangiarulo^{1,3}, Jéssica da Silva Oliveira¹, IPB COVID Workgroup¹, Carla Carolina Teixeira³, Jones Zitenfeld Cardia Neto⁴, Giovanna Geórgia Pires Carrilho Vallim³, Shana Priscila Coutinho Barroso¹

¹Laboratório de Biologia Molecular, Instituto de Pesquisas Biomédicas, Hospital Naval Marcílio Dias, Rio de Janeiro, Brasil. ²Instituto de Bioquímica Médica Leopoldo de Meis, Universidade Federal do Rio de Janeiro, Rio de Janeiro, Brasil. ³UTI neonatal, Clínica de Pediatria, Hospital Naval Marcílio Dias, Rio de Janeiro, Brasil. ⁴Serviço de Patologia, Hospital Naval Marcílio Dias, Rio de Janeiro, Brasil.

The disease caused by the SARS-CoV-2 virus has spread very rapidly throughout the world, causing various clinical manifestations and affecting several organs and systems. The objective of this work is to report cases of possible vertical transmission in pregnant women affected by the SARS-CoV-2 virus, as well as its clinical repercussions on the newborn. We conducted a retrospective cross-sectional study analyzing medical records of pregnant women admitted to a military hospital, in Rio de Janeiro, Brazil, diagnosed with COVID-19 and who had positive newborns. To evaluate epidemiological data, clinical manifestations, laboratory and histopathological changes were related to this vertical transmission. Only six newborns tested positive for COVID-19. The mothers had no respiratory symptoms, and gestational age was at term, except for one newborn born prematurely due to the detection of pericardial effusion. Three newborns had respiratory symptoms, requiring ventilatory support. None of the mothers or newborns died. During the pandemic, possible cases of vertical transmission from infected pregnant women in the third trimester of pregnancy were observed. According to case reports published in the literature, phenotypes of neonatal involvement with varied clinical manifestations and severity.

Keywords: SARS-CoV-2 Infection, Neonatal Outcomes, Vertical Transmission.