

SARS-CoV-2 Infection in Neonate: What do We Know So Far?

Infecção por SARS-CoV2 no Recém-Nascido: O Que Sabemos Até Agora?

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Palavras-chave: COVID-19; Infecção por Coronavírus; Recém-Nascido

Dear editor,

Since the emergence of coronavirus disease 2019 (COVID-19) in Wuhan, China, in December 2019, caused by a novel coronavirus SARS-CoV-2, there has been an exponential increase in the number of cases worldwide, which has led to a challenging pandemic.

Given the low number of reported cases, there are still scarce data about COVID-19 in the neonatal period.

Available studies are based in small samples and guidelines are non-consensual, which makes this issue not yet well understood in this specific population.

In order to gain a better understanding of SARS-CoV-2 infection in the neonatal period, we carefully reviewed all publications about COVID-19 in pregnancy and neonates in the MEDLINE and PubMed databases between December 2019 and March 2020.¹⁻⁴

The main findings and controversies are presented in Appendix 1 (see Appendix 1: https://www.actamedicaportuguesa.com/revista/index.php/amp/article/view/13825/Appendix_01.pdf).

Although neonatal early-onset infection has been described, no evidence of vertical transmission has been

demonstrated to date (Mar 2020).^{1,4} The existence of positive IgM antibodies to SARS-CoV-2 in a newborn from a positive SARS-CoV-2 mother has also been reported.⁵ Additionally, reported cases included neonates born from pregnant women infected during the 3rd trimester, so vertical transmission during the first two trimesters is yet to be clarified.¹⁻⁴ Assuming there is the possibility of vertical transmission, the ideal biological sample used to test newborns might not be the same used in adults. In order to exclude SARS-CoV-2 infection neonatologists might perform a throat swab and consider testing other samples such as blood, amniotic fluid, placenta, breast milk or rectal swab. However, it is important to consider horizontal transmission through respiratory secretions of the infected mother with SARS-CoV-2. Therefore, newborn separation from the mother must be considered a preventive measure.

So far, all the reported cases have been managed individually according to the newborns' clinical status and local guidelines.¹⁻⁴

Regarding symptoms, most cases of COVID-19 in neonates had mild symptomatic infection.¹⁻⁴ However, data are not enough to establish both short and long-term prognosis in these newborns. Fortunately, there have been no reported severe cases or related mortality in the neonatal period until now.¹⁻⁴

More data are needed to clarify our questions and doubts. Time and systematic monitoring of clinical and laboratory test findings will provide us with a better understanding and knowledge of this disease. Until then, in the absence of evidence-based medicine, we advocate a conservative and cautious management of this immature and special population.

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Joana MOSCOSO¹, Mónica MARÇAL¹, Madalena TUNA¹

¹. Neonatal Care Unit. Department of Pediatrics. Hospital de São Francisco Xavier. Centro Hospitalar Lisboa Ocidental. Lisbon. Portugal.

Autor correspondente: Joana Moscoso. jmoscoso@chlo.min-saude.pt

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