The Indian Journal of Pediatrics (September 2020) 87(9):759
https://doi.org/10.1007/s12098-020-03426-5

SCIENTIFIC LETTER

COVID-19 in a Preterm- Leading to Remodelling of Care

P. S. Siddhi[1] · G. Rayasandra[1] · A. J. Plant[1,2] · R. Krishnamurthy[1] · A. Bhaduri[1] · B. J. Muhammed[1]

Received: 26 May 2020 / Accepted: 18 June 2020 / Published online: 27 June 2020

To the Editor: COVID-19 has become the most significant pandemic of this era. Although adults and the elderly are most severely affected, children and neonates have been affected to a lesser extent [1]. Studies on pregnant mothers with COVID-19 published until date have shown limited evidence supporting vertical transmission [2]. We would like to report our first case of COVID-19 in a preterm neonate who contracted the infection in the second week of life, that prompted us to strengthen infection control measures.

A 33-wk-old neonate was born by emergency cesarean section due to maternal complications. He was born in poor condition. He was intubated, given surfactant and ventilated for 72 h. He was extubated on to humidified high flow until day 5 of life. On day 9 of life, he became unwell with poor feed tolerance and respiratory distress requiring non-invasive ventilation. Chest X-ray showed patchy consolidation of right mid-zone and left peri-hilar region suggestive of infection. Blood results showed a mild elevation of CRP to 14 mg/L (Normal <10 mg/L) and a raised platelet count. Due to this clinical deterioration and chest X-ray findings, intravenous antibiotics were commenced. Respiratory secretions for influenza, respiratory syncytial virus, adenovirus, rhinovirus, human metapneumovirus and parainfluenza were negative, but surprisingly COVID-19 RT-PCR was positive. The parents had shown no signs of illness suggestive of COVID-19 over the previous 14 d and reported no contacts with others with suspected COVID-19. He was isolated and barrier nursed with the recommended personal protective equipment (PPE) until repeat COVID swab was negative at 12 d. A five days course of intravenous antibiotics was given. The parents were asked to self-isolate for 14 d and remained well throughout isolation.

Following this case, existing infection control measures were strengthened and our threshold for screening neonates for COVID-19 were lowered. Visitors to neonatal unit were restricted and all parents were risk assessed. As COVID-19 had become endemic by this time, staff were advised to don appropriate PPE while attending all deliveries in hospital. All neonates who were admitted and/or requiring new respiratory support were screened for COVID-19.

Compliance with Ethical Standards

Conflict of Interest None.

References

1. Boast A, Munro A, Goldstein H. An evidence summary of paediatric COVID-19 literature. Available at: https://dontforgetthebubbles.com/evidence-summary-paediatric-covid-19-literature. Accessed 17th May 2020.
2. Chen H, Guo J, Wang C, et al. Clinical characteristics and intrauterine vertical transmission potential of COVID-19 infection in nine pregnant women: a retrospective review of medical records. Lancet. 2020;395:809–15.

✉ P. S. Siddhi
p.siddhi@nhs.net

[1] Department of Neonatology, Walsall Healthcare NHS Trust, Walsall, UK

[2] Department of Microbiology, Walsall Healthcare NHS Trust, Walsall, UK