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CORRESPONDENCE

Gastric Perforation and Necrotizing Enterocolitis Associated with COVID Antibodies

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To the Editor: A late preterm male infant weighing 2200 g, was born by cesarean section at 34^{+5} wk gestation. Antenatally, there was history of maternal fever without rash in the first trimester. Baby cried immediately after birth, was transferred to NICU, and started on paladai feeds. At 26 h of life, baby developed abdominal distension, billous aspirates, and grunting. He was made nil per oral, was supported on mechanical ventilation and inotropes. Abdominal radiograph showed presence of pneumatosis and gastrointestinal perforation. Emergency laparatomy was performed at 28 h of life. Baby was found to have a large gastric perforation and extensive necrosis involving terminal ileum and entire colon. Stomach perforation was closed and loop ileostomy was done. High titers of total COVID antibodies were found in the mother and infant (1350 and 725, respectively). Postoperatively, baby had a stormy course with severe metabolic acidosis and resistant shock requiring multiple inotropes. Baby gradually improved, minimal feeds were started on 10th postoperative day and finally baby was discharged on day 19 of life. In view of nonclassical presentation of necrotizing enterocolitis (NEC), an immune phenomenon was suspected. COVID antibodies titers were very high both in the mother and neonate. Albeit, there were no reports suggestive of COVID positivity in the mother but there was history of fever in the first trimester. Transmission of COVID IgG antibodies from mother to baby is a known phenomenon [1]. High levels of inflammatory markers like interleukin-10 and interleukin-6 have been reported in neonates born to COVID-positive mothers [2]. In a series of 29 COVID-positive women, 3 term neonates were diagnosed with NEC stage-2 [3]. There are two other reports of COVID-positive neonates presenting with features of NEC [2, 4]. These clusters of cases suggest a probable association of COVID infection and antibody response with NEC.

Declarations

Consent to Publish Taken from parents.

Conflict of Interest None.

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