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SCIENTIFIC LETTER

Congenital *Lactobacillus* Blood Stream Infection in Extremely Preterm Twins

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To the Editor: Lactobacillus spp. blood stream infection is extremely rare in children and is predominantly described in the adult population [1]. Only a few reports exist regarding neonatal *Lactobacillus* infection.

A 31-y-old woman with preterm dichorionic diamniotic twins was admitted due to the rupture of membranes. Tocolytics, antenatal corticosteroids and antibiotics were administered in view of chorioamnionitis (patient history, elevated C-reactive protein). Inflammatory markers escalated despite treatment and failed tocolysis led to cesarean section at 24 + 5 wk gestational age. Both infants suffered from severe respiratory distress syndrome and required prolonged ventilatory support. The infants were started on Penicillin and Gentamicin, however, no serious signs of sepsis were observed and the blood sample at admission revealed no significant elevation of inflammatory markers. Nevertheless, blood cultures were positive for *Lactobacillus spp*. The infants were treated successfully with antibiotics for seven days and post-treatment blood cultures were negative. The infants' outcome was favourable without any serious adverse events.

The main risk factors for *Lactobacillus* infection appear to be immunodeficiency, severe underlying disease, invasive lines or prolonged ineffective antibiotic treatment [1]. Although congenital *Lactobacillus* infection is uncommon and has been reported previously, this complication has not been yet described in extremely preterm twins.

In our case, the twins' blood cultures at admission were positive for *Lactobacillus spp*. Interestingly, the inflammatory response in infants was minimal including the twin A, where histological chorioamnionitis was confirmed. The infection transmission remains unclear as we were unable to cultivate *Lactobacillus spp*. from any other site (neonatal, placental and cervicovaginal swabs). However, the contamination was considered unlikely as blood cultures were obtained by two skilled neonatologists in a tertiary center.

Cultured from blood stream using sterile technique, *Lactobacillus* should be recognized as a serious pathogen regardless of mild clinical and laboratory findings, especially in extremely preterm infants [2, 3]. We can speculate about different outcome in our patients if the optimal antibiotic treatment was not given.

Compliance with Ethical Standards

Conflict of Interest None.

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