

Session/Poster#

Presenter

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Myoung Choi

Pediatric Resident

Advisor(s): Dr. Sergio Golombek, Pediatrics/Neonatology

Congenital Lead Poisoning in a Preterm Infant

Introduction: Lead poisoning remains a significant public health concern despite efforts to mitigate the risk. While management guidelines are available for pediatric patients, there is a lack of treatment protocol especially among preterm infants. We report a case of congenital lead poisoning in a preterm infant born at 32+1 weeks due to maternal pica.

Case description: During a routine prenatal visit at 30 weeks of gestation, a 35 year-old, G5 P2113 mother reported regularly ingesting soil. She explained it was a traditional norm for expectant mothers in her country to eat clay, but she also developed cravings to consume soil. Her blood lead level (BLL) was elevated at 36.9 $\mu\text{g}/\text{dL}$ two weeks before delivery which did not warrant chelation. She gave birth to a female infant at 32+1 weeks of gestation via vaginal delivery with a birthweight of 1735g (58th percentile). The infant's BLL on day 1 of life was 45.5 $\mu\text{g}/\text{dL}$. Chelation with succimer was initiated at 1050 mg/m²/day in three divided doses, rounded to the nearest 100 mg/day for four days. Repeat BLL the next day was 3.0 $\mu\text{g}/\text{dL}$, and no side effects were observed. Throughout her NICU stay, she remained asymptomatic and was discharged on day 21 of life. Subsequent BLL levels on day 16, 27, 48 and 60 of life were 15.5, 27.2, 16.3 and 18.9 $\mu\text{g}/\text{dL}$ respectively, rebounding initially and then reaching a steady level.

Discussion: It is imperative to identify mothers at risk of lead poisoning early in the prenatal period to reduce congenital toxicity. To our knowledge, there have been few reported cases of lead poisoning in preterm infants which underscores the need for standardized treatment in this population. Although this infant's neonatal course was uneventful, close follow-up is necessary to assess neurodevelopmental outcomes. This case report adds to the current knowledge of lead poisoning in preterm infants and emphasizes the need for continued efforts to prevent lead exposure.