Bronze baby syndrome or early onset sepsis?

¿Síndrome del niño bronceado o sepsis neonatal precoz?

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A female late preterm neonate was admitted for respiratory distress syndrome (RDS) requiring invasive ventilation with sedation with fentanyl, surfactant administration and inotropic support with dopamine due to hypotension. At birth, she had aspirated secretions containing blood. Phototherapy was initiated by day 4 post birth due to jaundice (serum bilirubin, 16.31 mg/dL). Twelve hours later, the infant developed a greenish brown discoloration in the chest and lower extremities (Fig. 1). The white blood cell count was 4100/µL, the C-reactive protein level 36.4 mg/L and the procalcitonin level 68.78 ng/mL. Transaminase and albumin levels, direct bilirubin level and coagulation tests were normal. Treatment was initiated with ampicillin and gentamicin were started. The discoloration progressed and was contained to areas exposed to ultraviolet radiation. Phototherapy was suspended, and the discoloration improved. The blood cultures were negative. The hypotension resolved once the dose of fentanyl was reduced.

The development of atypical discoloration in a patient with RDS and hypotension led to the suspicion of early-onset sepsis. However, over time discoloration progressed to a pattern characteristic of bronze baby syndrome.1-3 The hypotension was most likely secondary to sedation with fentanyl and the blood in the airway probably caused surfactant inactivation.

Bronze baby syndrome is a rare adverse effect of phototherapy in the treatment of neonatal jaundice that consists in the development of a greenish-brown discoloration, in some cases associated with direct hyperbilirubinemia and cholestasis.3 Complete resolution is achieved with discontinuation of phototherapy.2

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Figure 1  Discoloration in a preterm newborn exposed to phototherapy. Diaper-covered areas were not affected.

References

