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Congenital tuberculosis in an extremely premature newborn: Report of a case

Introduction: Tuberculosis is still considered an infectious disease that causes an important morbidity and mortality in all the world. According to the WHO in 2015 there were reported 10,4 million new cases in the world, from those 3,5 million were women and 1 million were children. Neonatal tuberculosis is rare and with a high mortality, approximately 50% of the cases.

Objective: Describe a case of congenital tuberculosis in an extremely premature newborn (25.5 weeks of gestational age)

Results: Newborn with the next antecedents: Product of a mother of 36 years old, native and resident of Tula de Allende Hidalgo, Mexico. First pregnancy in which mother presents with oligohydramnios and fetal distress reason why it was interrupted by C-section with previous administration of betamethasone and neuroprotection with magnesium sulfate. We receive a feminine product with poor breathing effort who requires endotracheal intubation, APGAR 8/9, weight 830 grams, 25.5 weeks of gestational age. Programmed extubation 18 hours post intubation, good breathing effort and oxygenation index. Patient with parenteral nutrition for 10 days and enteral feeding 24 hrs. after birth reaching total volumes for weight. When the patient reaches 32 days of life she courses with a urinary tract infection with urine culture positive for *Escherichia coli* sensible to amikacin for which she receives 7 day of antibiotic treatment; control of urine culture and renal ultrasound reported normal. At 63 days of life the patient presents with labored respirations needing CPAP for supplementary oxygen support reason why we did the complete study for neonatal sepsis. The thorax X ray had bilateral diffuse heterogeneous infiltrate. Hematic biometry with leukocytosis, toxic inclusions and high neutrophilic band cells, C-reactive protein 9.65 positive and started antibiotic scheme with cefotaxime and vancomycin. Due to the torpid evolution and the lack of improvement we escalated the antibiotic therapy to meropenem and vancomycin. The mother presents a bad surgical evolution, during her study they did a suprarenal gland biopsy isolating *Mycobacterium tuberculosis* leading to the diagnosis of military tuberculosis. We did bronchial aspirate with Ziehl-Neelsen stain and positive bacilloscopy, C-reactive protein in bronchial aspirate positive for *Mycobacterium tuberculosis* sensible to rifampicin. Cephalorquid liquid yellow clear, glucose 57,3, proteins 166, LDH 47.5, CRP CRL negative, quantiferon for TB positive. We initiate antifimic treatment with Isoniazid 10 mg/kg/day, Rifampicin 15 mg/kg/day, Pyrazinamide 15 mg/kg/day and Ethambutol 20 mg/kg/day. Within seven days of treatment the patient presents a satisfactory evolution.

Conclusions: The sequence of events we describe in this case report demonstrate the difficulty of the correct diagnosis and treatment in neonates. The greater risk of transmission of this illness to the fetus is the military tuberculosis of the mother. The clinical symptoms and the findings in the X-ray tend to be unspecific. To establish a definitive diagnosis in the newborns we need to obtain blood cultures, bronchial cultures, CRL, bacilloscopy in gastric secretion and we must consider doing molecular tests such as C-reactive protein with better sensibility and specificity.

Biography

Brenda Ivette Frias Madrid is a Specialist in Pediatric and Neonatal Intensive Care. She graduated as a Surgeon at the National Polytechnic Institute (IPN), completed the Specialties of Pediatrics at the National Autonomous University of Mexico (UNAM) and Neonatology at the National Institute of Perinatology (INPer). Her positions range from being an Anesthesiologist Doctor within the Department of Anesthesia of the Institute of Medical Sciences and Nutrition "Salvador Zubirán", and as Coordinator of the Center for the Development of Medical Skills (CEDDEM) of INCMNSZ. She has more than 10 years of experience and is an expert in Pediatrics, Neonatology and Neonatal Intensive Therapy. Dr. Frias Madrid has valid certification from the Mexican Council of Pediatrics, AC. and by the Mexican Board of Certification in Pediatrics, Neonatology Section, AC.

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