

Neonatal Melioidosis with Pneumatoceles

Melioidosis is a glanders like infectious disease caused by *Burkholderia pseudomallei*, a soil saprophyte which is endemic in tropical countries [1]. We report melioidosis in a late preterm (36 weeks born by Caesarian section, for fetal distress) male neonate (birth weight 4 kg). The antenatal history was unremarkable; spontaneous rupture of membranes occurred prematurely. The Apgar scores were 7 and 8 at 1 and 5 min, respectively. The neonate was hypoxic at birth and was administered oxygen for 2 days in the neonatal intensive care unit (NICU). He improved on day 3 and was started on direct breast feeding.

On day 5, the neonate had fever and tachypnea for which he was shifted to NICU and started on oxygen and antibiotics (Ampicillin and Amikacin). On day 6, respiratory distress worsened, and he developed septic shock for which he was mechanically ventilated and given inotropes and platelet infusion. Antibiotics were upgraded to Meropenem and Vancomycin.

He was shifted to our neonatal unit on day 8, with signs of shock in the form of central cyanosis, hypotension and absent peripheral pulses. There was abdominal distension with hepatosplenomegaly. Investigations revealed leukopenia (total leukocyte count 3100 cells/mm³, P-14%, L-84%, M-2%) with severe thrombocytopenia (platelet count 25,000 cells/mm³), raised C-reactive protein (194 mg/L), hypocalcemia and mixed acidosis. Chest X-ray showed diffuse bilateral pneumatoceles, and echocardiography documented severe pulmonary hypertension. He was managed with high frequency ventilation, inhaled nitric oxide, inotropes and steroids. With worsening hypoxia and acidosis, he died within 8 hours of admission. Blood culture (BacT/ALERT PF plus medium) grew *B. Pseudomallei*, identified using Vitek-2 (Biomerieux, France).

Common presentations of neonatal melioidosis are fever, respiratory distress, bacteremia and meningitis. The mortality in neonatal melioidosis is high as compared to pediatric melioidosis. Ceftazidime is the drug of choice; meropenem is an alternative. Treatment with aminoglycosides, ciprofloxacin and colistin results in treatment failure [2].



FIG. 1 Chest X-ray showing extensive bilateral pneumatoceles.

This neonate's mother was an agricultural worker and could have contracted the infection from contact with water or soil [3]. There are less chances of infection being nosocomial, as the neonate was symptomatic at birth. Blood culture was not taken from the mother, and hence a rare possibility of transplacental spread or spread via breast milk could not be excluded [4,5]. Our report alerts both the clinicians and microbiologists about the rare occurrence of melioidosis in febrile children and neonates from rural background, who are admitted with severe respiratory distress.

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