

Acquired Lung Cyst in a Newborn Baby with Cytomegalovirus Infection

Pneumonitis develops in 15-25 % of Cytomegalovirus (CMV) infected preterm infants [1]. There are occasional case reports of congenital lobar emphysema and Wilson-Mikity syndrome in CMV-infected neonates [2,3]. We report a CMV-infected preterm neonate who developed a cystic lung disease.

A preterm (31 weeks) girl delivered by Caesarean section with a birth weight of 1060 g to a primigravid mother was on full feeds (with expressed breast milk) by day-8 of life. On day-23 of life, child developed respiratory distress and apnea, and was started on antibiotics and oxygen. X-ray showed a left lower zone consolidation. Blood culture showed no growth and intravenous antibiotics were given for 7 days. She required supplemental oxygen for 14 days. As the baby recovered, X-ray showed clearing of the consolidation with appearance of bubbly lucencies, and the left dome of the diaphragm was not well visualized. The lesions then coalesced into a few well-defined cysts (**Fig. 1**). Urine PCR for CMV was positive as also the serum CMV IgM. Baby's hearing screen and eye examination were normal. By two weeks, baby had no respiratory distress. She was discharged 4 weeks later. She is currently 2-year-old and is developmentally normal. Serial X-rays were done and one at 9 months showed complete resolution of the cysts.

Our patient was asymptomatic at birth and initial chest X-ray was normal. The absence of cysts on the first X-ray was in favor of an acquired rather than congenital lung cyst. Even though it is difficult to prove causation, we did not find another explanation for the lung cyst other than CMV infection in this baby. Since the CMV PCR was not done within the first week, we could not definitely say if the CMV was acquired transplacentally or perinatally. The association between lung cysts and acquired CMV infection has been reported earlier [4]. Carrol, *et al.* [2] described association of congenital lobar



FIG. 1 Cystic lucencies in lower zone of left lung in a CMV-infected neonate.

emphysema and CMV infection in a 32 weeks gestation preterm neonate [2]. We recommend that CMV infection should be considered as differential diagnosis in the newborns presenting with acquired lung cysts.

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