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Congenital cystic adenomatoid malformation of lung: A case report

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ABSTRACT

A term neonate developed respiratory distress after 12 hours of birth which was diagnosed as a case of congenital cystic adenomatoid malformation (CCAM) of the right lung by computerized tomography scan. CCAM of the lung is rare congenital cystic lung lesion.

Key Words: Congenital cystic adenomatoid malformations, respiratory distress.

INTRODUCTION:

CCAM of the lung is rare developmental hamartomatous abnormality of lung that arise from excessive disorganized proliferation of tubular bronchial structures. We report a case of Type I CCAM in a newborn.

CASE REPORT

A term appropriate for gestational age male baby, delivered by normal vaginal delivery developed respiratory distress after 12 hours of life. Mother was 27 years old primigravida. There was no history of maternal risk factors for early onset sepsis. Liquor was clear. Baby cried immediately after birth. On examination, respiratory rate was 86/ min with subcostal and intercostal retraction and nasal flaring. SPO_2 was 100% and no cyanosis or grunting with oxygen .Air entry was lightly diminished on right side. Complete blood count was within normal limit. Sepsis screen was negative. Blood culture revealed no growth. Chest x-ray showed right upper lobe opacity. So, we treated the case as clinical sepsis with pneumonia with broad spectrum antibiotics. But no clinical improvement occurred even after changing antibiotics. Contrast computerized tomography scan of chest showed a right upper lobe solitary enlarged cyst surrounded by numerous microcysts which was highly suggestive of CCAM. Respiratory rate decreased following resection of cyst and histopathology of cyst wall showed it was lined by pseudostratified columnar epithelium and surrounded by fibromuscular bundles and free of cartilage which confirmed the diagnosis of CCAM (type 1). Patient had no respiratory symptoms in last nine months.

Fig. 1: CT chest showing microcysts on right upper lobe.

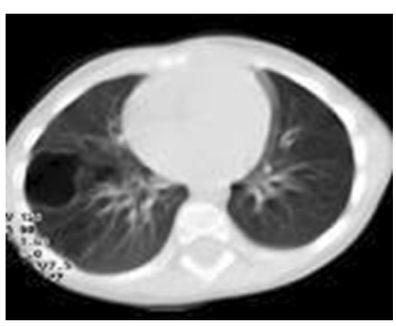

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Fig. 2 : Chest X-ray showing large consolidation on right upper lobe.

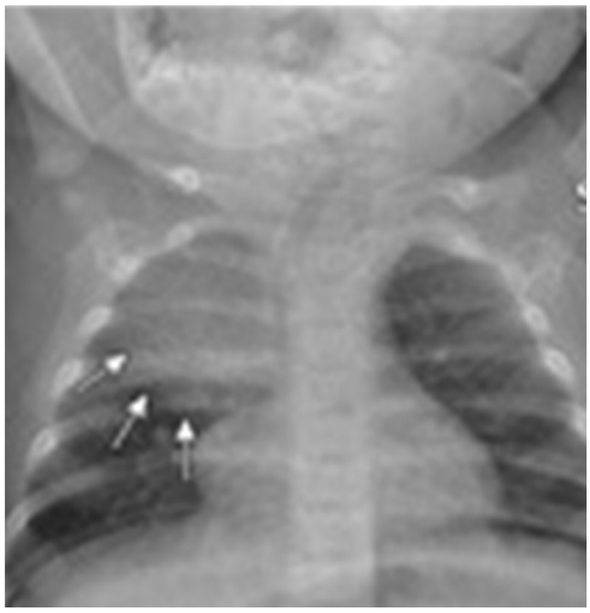
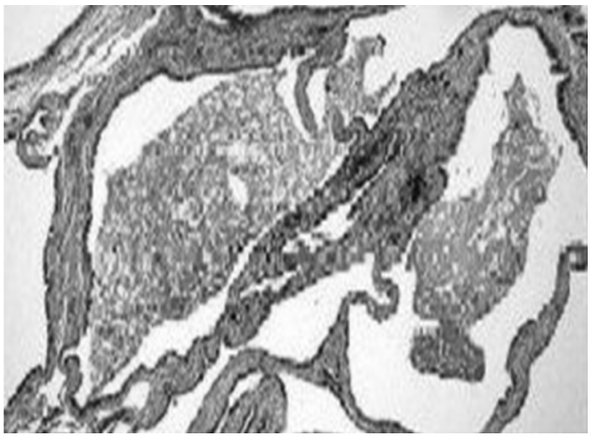


Fig. 3: Histopathology showing walls of cysts lined by pseudostratified columnar epithelium and surrounded by fibromuscular bundles and free of cartilage suggestive of CCAM(type 1)



DISCUSSION

CCAM are of three types[1].Type1 (macrocystic type) is most common. Type 2 (microcystic type) may be associated with other congenital abnormality. Type 3 (solid type) has poorest prognosis. Surgical resection is the treatment of choice in all cases of CCAM even in asymtpmatic cases to prevent infection and the potential neoplastic transformation. [2,3]

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