Scholars Journal of Medical Case Reports **ISSN 2347-6559 (Online)**
Sch J Med Case Rep 2014; 2(10):672-673 **ISSN 2347-9507 (Print)**

(An International Publisher for Academic and Scientific Resources)
www.saspublishers.com DOI: 10.36347/sjmcr.2014.v02i10.009

Neonatal lobar emphysema presenting as opaque lung

Shivaprasad B[1], Lakshmi V[2], Shanmugasundaram R[3]
Department of neonatology, Mehta children's hospital, Chennai-28, Tamilnadu, India

***Corresponding Author:**
Name: Dr. Shivaprasad B
Email: neoprasad@gmail.com

Abstract: We report a case of congenital lobar emphysema in a male baby who presented with respiratory distress since birth. Initial x-ray showed lobar opacity on right side. Follow up X -rays showed classical presentation of lobar emphysema. Computed tomography demonstrated CLE. We emphasize the importance of follow-up and repeat imaging in cases with these type of naturally evolving stages.
Keywords: lobar, emphysema, neonatal, opaque, hyperlucency

INTRODUCTION

Congenital lobar emphysema is hyperinflation of one or more lobes of the lung due to defect involving the bronchopulmonary tree[1]. Most infants present in the newborn period with respiratory distress, decreased breath sounds and mediastinal shift. Chest radiography characteristically reveals an hyperaerated lobe.

CASE REPORT

A term male baby delivered by cesarian section presented with mild respiratory distress at 3hrs of life. Initial X ray showed mid zone opacity suggestive of retained pulmonary fluid on the right side.He was treated with oxygen and IV fluids and respiratory distress subsided within 72hrs of life. Repeat X ray taken showed resolution of mid zone opacity replaced by hyperlucency with vascular markings on right side with mediastinal shift towards left side(Fig 1). Congenital lobar emphysema was diagnosed and CT scan showed classical right middle lobe emphysema(Fig 2). Right middle lobe lobectomy was done and post-operatively baby was stable.

Fig-1: Mid zone opacity (R) possible delayed expulsion of pulmonary fluid

Fig-2:Hyperlucency with vascular markings and mediastinal shift.

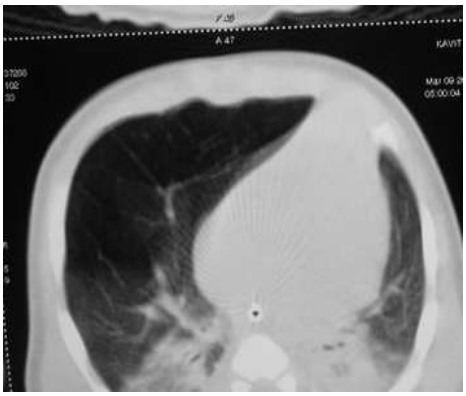

Fig-3: CT chest - right middle lobe emphysema with attenuation of vascular markings and compression of lower lobe and herniation of emphysematous lobe.

DISCUSSION

Congenital lobar emphysema (CLE) is most often detected in neonates and it is a known cause of respiratory distress in the neonate. The characteristic large hyperlucent lobe is classical radiologiical finding[1]. The opaque lung, on the other hand, as a manifestation of CLE is not well appreciated.In neonatal radiological images, the affected lobe may be slightly opacified, rather than lucent, because it is still filled with fluid.

Most conditions in this category are usually seen with the typical check-valve type of obstruction which results in overexpansion and hyperlucency of the affected lobe or lung [2]. Obstruction is believed to occur early in intra-uterine life and fluid accumulates proximal to the obstruction and this gives initial opaque appearance. Later as fluid cleared, the classical appearance develops [3,4]. Added possibility is that emphysematous lobe does cause functional lymphatic obstruction [5].

CONCLUSION

In this case contrary to hyperlucency in emphysema, x ray initially presented as opacity. As some cases are still in the evolving stages ,it needs careful follow-up.

REFERENCES

1. Fagan CJ , Swichuk LE; The opaque lung in lobar emphysema. Am J Roentgenol Radium Ther Nucl Med, 1972;114(2):300-304.
2. Corbett DP, Washigton JE; Respiratory obstruction in the newborn and excess pulmonary fluid. Am J Roentgenol Radium Ther Nucl Med, 197; 112(1):18-22.
3. Griscom NT, Harris GBC, Wohl MEB; Fluid filled lung due to airway obstruction in new born. Pediatrics 1969,43(3):383-390.
4. Zumbro GL, Treasure RL, Geijer JP; Respiratory obstruction in the new born associated with increased volume and opacification of the hemithorax. Ann Thorac surg, 1974:18(6):622-625.
5. Allen RP, Taylor RI, Requiam CW; Congenital lobar emphysema with dilated septal lymphatics. Radiology, 1966:86(5):929-932.