Spontaneous multiloculated pneumomediastinum in a newborn baby

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Introduction: Spontaneous pneumodiastinum in a term baby without assisted ventilation or known underlying disease is uncommon.
Case report: We report the case of a baby boy born at 38 weeks gestation by c-section due to stationary labour and infectious risk. The antenatal follow-up was normal. The Apgar scores were 9 at 1min and 10 at 5min. Grunting and mild/moderate respiratory distress were noted after birth. A chest radiograph taken at the time was compatible with transient tachypnea of the newborn. Because his condition worsened he was transferred to our neonatal intensive care unit. Chest radiograph on day 3 demonstrated an hypotransparent image in the superior left lobe and a round halo of air over the left side of the heart. CT scan revealed a multiloculated gas collection of 5cm in the left antero-superior mediastinum, with multiple internal septa, displacing the left thymic lobe superiorly, with no evidence of pleural or pericardic effusion. This was suggestive of a spontaneous multiloculated pneumomediastinum. Esophagic contrast study excluded esofagic perforation.
The baby was treated with high inspired oxygen concentration during 7 days. He was discharged on day 14 of life, clinically well, with a chest radiograph showing complet reabsortion of the pneumodiastinum.
Discussion: Neonatal pneumomediastinum has two unique features: its tendency to loculate locally, unlike in older children and adults, and the presence of multiple internal septa, which were demonstrated in our case. Spontaneous pneumomediastinum in otherwise well newborns is rare, but should be considered as a differential diagnosis in the presence of chest radiolucency of sudden appearance and with no prior evidence of lung lesion.