NECROTISING PNEUMONIA WITH EMPYEMA

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Background

Establishing microbial diagnosis in pneumonia is difficult and rationalizing empiric antimicrobial use is fraught with challenges. We present a case of severe necrotising pneumonia with empyema in a previously healthy child from community.

Case Summary

A 2 ½ y girl was referred for treatment of left sided complicated pneumonia with pleural effusion.

The child had received oral coamoxiclav and IV cefoperazone sulbactam and Piperacillin tazobactam, 3 days each. Investigations revealed neutrophilic leucocytosis and CRP of 200.

CT scan of the chest (Fig1) revealed consolidation with areas of breakdown in left midzone with loculated pleural effusion.

The child was started on Ceftriaxone and Vancomycin + Clindamycin and underwent VATS.

24 hr post VATS, Xray Chest revealed satisfactory expansion of the left lung. WBC and CRP improved.

During the course, after 6 days, child developed fever, increasing tachypnea with reduced air entry on the left side with increase in the CRP. A repeat CTscan of the chest (fig 2) showed a huge loculated pocket of air outside the ICD with consolidation with necrotic areas, in the mid zone on the left side. The loculated pneumothorax and fluid were drained with another ICD.

Fig 1:CT chest showing necrotising pneumonia in left lobe

Fig. 2: CT loculated pneumothorax and necrotising pneumonia on left

1. In the absence of isolation of any pathogen from blood or pleural fluid/debris, and the deteriorating lung parenchymal lesion, Flucloxacillin and Meropenem were added to cover MSSA and Klebsiella respectively.
2. The child improved clinically over a period of 7 days, the ICD tube was removed and the child was discharged on Ofloxacin and Linezolid. There was complete resolution at follow up at 4 weeks used was Co-amoxiclav plus Metronidazole plus Amikacin.

Learning Points/Discussion

Necrotising pneumonia can pose a therapeutic challenge in absence of bacteriological evidence and may need agents to cover MSSA, MRSA and Klebsiella in such a setting.