X-Ray-evaluation

Figen Palabıyık[1], Solmaz Çelebi[2], Zeynep Yazıcı[1], Mustafa Hacımustafaoğlu[2]
[1]Department of Radiology, Division of Pediatric Radiology, Uludağ University Faculty of Medicine, Bursa, Turkey
[2]Department of Pediatric Infectious Diseases, Uludağ University Faculty of Medicine, Bursa, Turkey

Pneumonia, Atelectasis, Parapneumonic Effusion, and Pleural Thickness

Brief clinical summary: A 3.5 year-old male patient followed up by the pediatric neurology department due to febrile convulsion underwent appendectomy with the diagnosis of appendix at the hospital where he applied with abdominal pain ten days ago. The patient developed fever, respiratory distress and tachycardia the following day. In his chest roentgenograph, increased density was observed in the left lung. Upon the progression of respiratory distress, the patient was sent to the intensive care unit; the patient was inserted a thorax tube after the thoracocentesis. Having spent five days at the intensive care unit, the patient was transferred to our hospital upon the progression of the symptoms.

In the physical examination, he had mild fever (38.7 C, rectal), tachypnoea (62/minutes), tachycardia (132/minutes), and reduction in the breathing sounds in the left lung at central and lower zones.

Laboratory findings: Hemogram: no specificity, biochemistry: no specificity, CRP: 12 mg/dL, ESR; 123 mm/hour

In the pleural fluid obtained in the previous center, glucose was <1 mg/dL, protein: 4.7 gr/dL (serum 6.6 gr/dL), LDH: 941 U/L (serum 472), gram staining 5-10 neutrophil, and no bacteria was found. It was also found that PPD and quantiferon test was negative; ADA was normal in the pleural fluid, tuberculosis PCR was negative, and ARB was negative. Immune tests were also within the normal limits.

Thorax Ultrasonography: complicated para pneumonic effusion with 2 cm thick septated effusion in the left side was detected,

PA and left side decubitus chest graphes and thorax BT were performed.

Clinical course and observation: The fever of the patient who was given vancomycin, meropenem and amikacin subsided on the 4th day; patient's respiratory rate and tachycardia improved. As there was no fluid coming from the thorax tube, patient's tube was removed on the 7th day; his treatment was completed on the fourth week; improvement was detected in the chest roentgenograph in the third week.

Correspondence Address:
Mustafa Hacımustafaoğlu, Uludağ Üniversitesi Tıp Fakültesi, Çocuk Enfeksiyon Hastalıkları Anabilim Dalı,
Bursa, Türkiye
Phone: +90 224 442 88 75
E-mail:
mkemal@uludag.edu.tr

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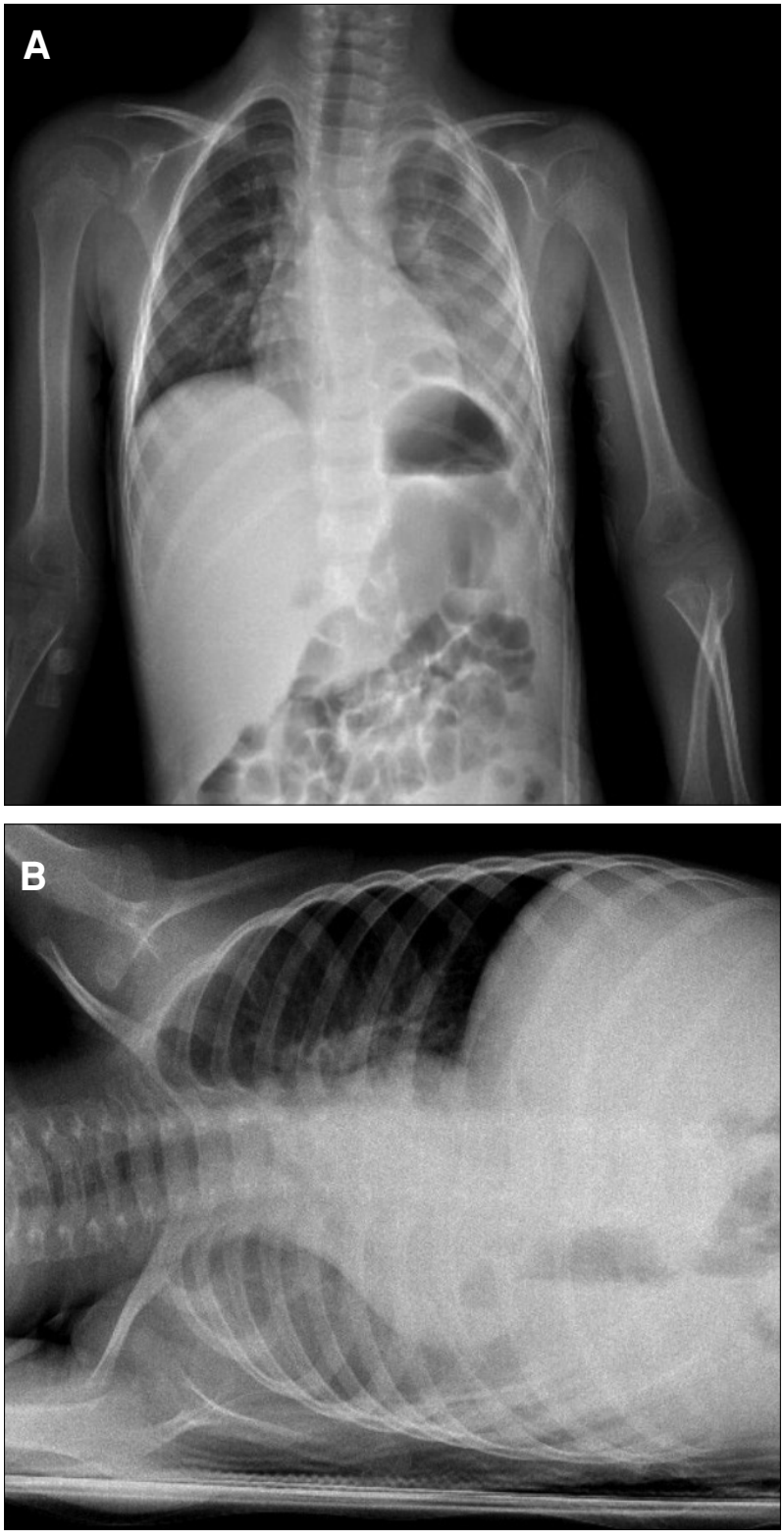

Figure 1. A. In the upright chest graph of the patient, mild scoliosis with facing left side is visible. In the left lung, particularly in the lower lobe, diffusely increased density (consolidation) is observed. The blocked left costophrenic sinus leads us to think of the accompanying pleural effusion. When they are evaluated together with the clinical findings of the patient, the radiological findings support the pneumonia in the left lung with the parapneumonic effusion. B. In the left side decubitus (left side in the buttom) graph, no finding compatible with the appearence of free fluid level has been observed.

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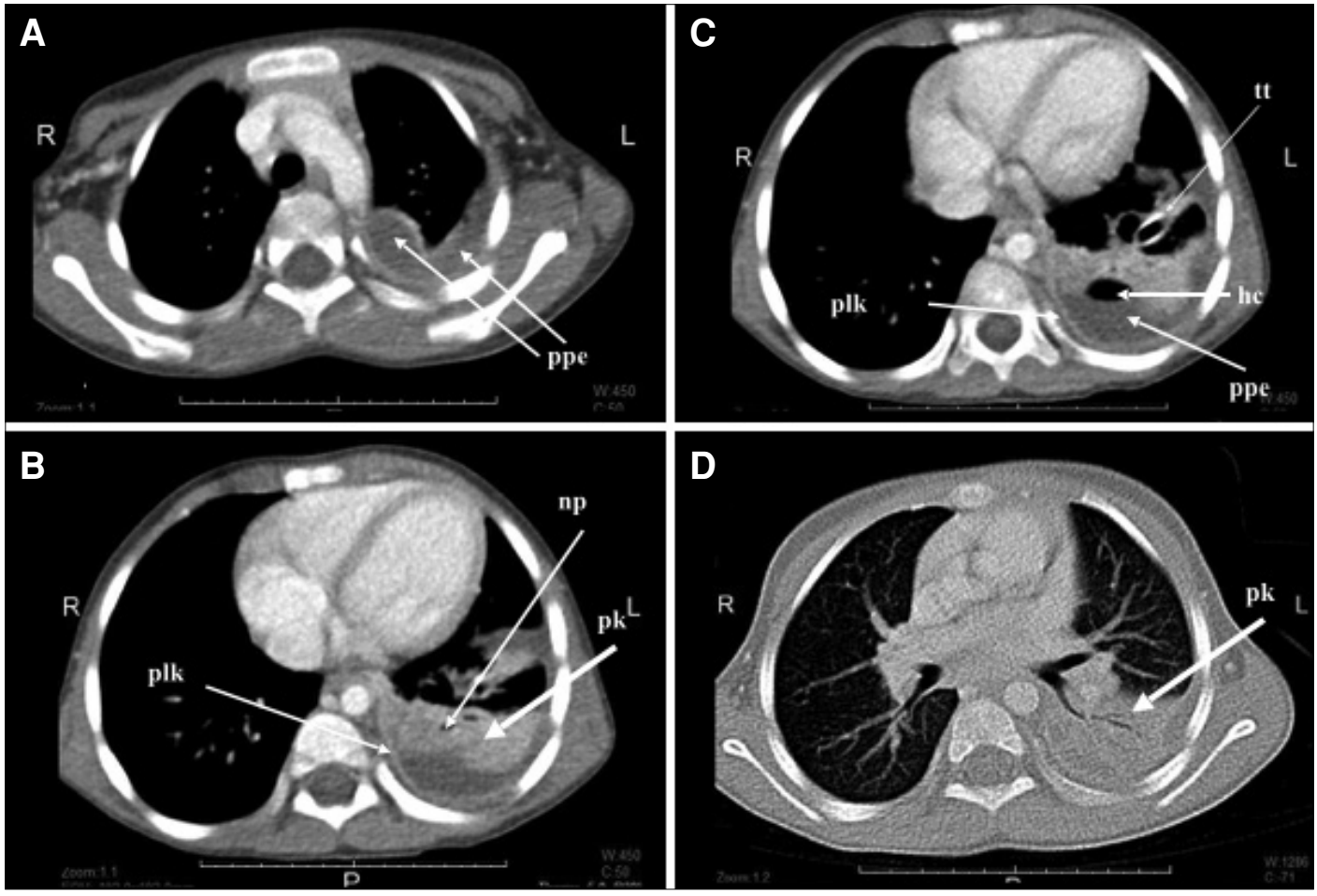

Figure 2. Contrasted thorax CT analysis has been done on the same day with the chest roentgenograph. In the sections obtained from the mediastinum window (A-C), in the left hemithorax, localized pleural effusion (ppe), pleural thickness (plk) and pneumonic consolidation (pk) were observed in the lower lobe. The regions not stained by the contrast material inside the consolidation are compatible with the necrotizing pneumonia (np). The thorax tube (tt) is visible in the left basal side. The air pocket (C, hc) visible in the pleural space is probably due to the thorax tube. In the section obtained from the parenchyma window (D), air bronchogram is seen within the consolidation region.

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