CLINICAL IMAGES

Pediatric presentation of pulmonic effusion secondary to influenza

Norma L. Cooney · Derek R. Cooney · Brian Kloss

Received: 2 June 2009 / Accepted: 13 June 2009 / Published online: 1 August 2009 © Springer-Verlag London Ltd 2009

A previously healthy 13-year-old male presented with a 10-day history of intermittent fevers. He had a several-day history of productive cough with nausea and vomiting and had been treated for dehydration 4 days previously. No chest X-ray was obtained. On the second visit to the ED, the patient was markedly hypotensive (80/40), tachycardic, and febrile at 104.9°F. On exam, his mentation was slow. The patient's extremities appeared mottled and cyanotic. He had decreased breath sounds in the left lung fields. Chest X-ray showed left lower lobe pneumonia with a large left pleural effusion (Fig. 1). Laboratory tests showed marked leukocytosis with a left shift. Blood cultures were negative, but nasopharyngeal swabs were positive for influenza A H1 and H3.

The etiology of pneumonia with extensive pleural effusion includes bacteria, with *S. pneumoniae, S. aureus* and *H. influenzae* being the most frequent pathogens, followed by viral agents, atypical bacteria, and, rarely, malignancy. Influenza A and RSV are the most common causes of viral pneumonia, followed by adenovirus, parainfluenza virus, and

N. L. Cooney (

Department of Emergency Medicine, SUNY Upstate Medical University, 750 East Adams Street, Syracuse, NY 13210, USA e-mail: cooneyn@upstate.edu

D. R. Cooney · B. Kloss Department of Emergency Medicine, SUNY Upstate Medical University, EMSTAT Center/550 East Genesee, Syracuse, NY 13202, USA

D. R. Cooney

e-mail: cooneyd@upstate.edu

URL: http://www.upstate.edu/emergency/residency/fellowship/emsdm.php

B. Kloss

e-mail: klossb@upstate.edu

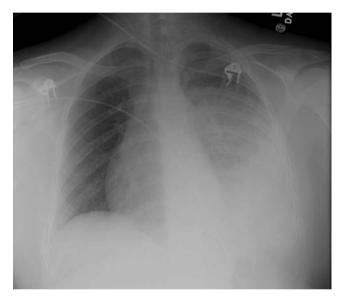


Fig. 1 Left lower lobe pneumonia with large pleural effusion

influenza B [1]. Pneumonia occurs in a minority of patients with influenza (3–16%) [2]. Pleural effusion, while likely to develop in at least 40% of patients with bacterial pneumonias [3], is a rare complication of influenza pneumonia [2]. Bacterial coinfection is the most common complication of influenza pneumonia and occurs in up to 20% of cases [2]. This child had a high probability of having a bacterial coinfection. His late presentation precluded treatment with adamantanes or neuraminidase inhibitors.

References

- Marcos MA, Esperatti M, Torres M (2009) Viral pneumonia. Curr Opin in Infect Dis 22:143–147
- Lahti E, Peltola V, Virkki R, Ruuskanen O (2006) Influenza pneumonia. Ped Infect Dis J 25(2):160–164
- Sinaniotis CA, Sinaniotis AC (2005) Community-acquired pneumonia in children. Curr Opin in Pulm Med 11:218–225

