Giant Pneumatocele with Lung Herniation

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Picture 1.

Picture 2.

Picture 3.
A 48-year-old man with acquired immunodeficiency syndrome was admitted for *Pneumocystis jirovecii* pneumonia (PJP). Upon respiratory failure, he received endotracheal intubation and mechanical ventilation support. Recurrent pneumothorax occurred, and he underwent pleural drainage several times. After a few weeks, an enlarged soft bulge was observed in the left lateral region of the chest wall (Picture 1) which became larger with effort or coughing. Chest radiography revealed lung herniation through the chest wall (Picture 2). Computed tomography (CT) revealed lung herniation from a giant cystic lesion through a chest wall defect (Picture 3). Since the patient was a non-smoker and the initial CT illustrated diffuse patchy consolidations without emphysematous changes or small bullae formation, a giant pneumatocele which resulted from parenchymal necrosis and check-valve airway obstruction was the most favored diagnosis. Furthermore, the chest wall defect may have been due to the repeated chest tube placement on similar locations with poor wound healing. The patient received conservative treatment due to ongoing sepsis.

Intercostal lung herniation can occur after external chest trauma, surgery or violent coughing. Rapidly progressive giant pneumatoceles have been described as a subsequence of necrotizing alveolitis induced by PJP (1). Although the disappearance of pneumatoceles after treatment has been reported, the prognosis is considered to be very poor in this case due to the massive alveolar destruction (2).

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References


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