Unusual Empyema

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A 49-year-old man, ex-smoker of 12 pack years, chronic alcohol consumer, was symptomatic with high grade fever, right sided pleuritic chest pain and cough. Clinical examination demonstrated signs of right sided pleural effusion. Haematological and biochemical evaluation revealed only mild leucocytosis. The chest radiograph confirmed a right sided loculated pleural effusion (Figure 1). The pleural fluid aspiration yielded pus. The cyto-biochemical analysis showed protein-6.5 gm/dl, WBC count-12375, polymorph predominant. Gram and acid-fast bacilli smears were negative. Pleural fluid adenosine-deaminase level was 87.90 units/litre. A contrast-enhanced computerised tomography (CECT) thorax (Figure 2) showed a foreign body in the right bronchus intermedius with a CT density of 2000-2100 HU and moderate right pleural effusion.

The patient was diagnosed as a case of right sided empyema due to right bronchus intermedius foreign body. A metallic foreign body was removed via rigid bronchoscopy. Empyema was treated with intercostal drain insertion and antibiotic (amoxicillin-clavulanic acid) for 4 weeks. The patient recovered completely.

Foreign body (FB) aspiration is rare in adults. It can remain unrecognized for variable time before it manifests itself.¹ The right main bronchus and the bronchus intermedius are the commoner site for aspiration as compared to the left. FB aspiration has varied presentations.¹ Long standing aspirated FB may cause bronchiectasis, necrotising pneumonia or pleural effusion. It is a rare cause for empyema; which develops secondary to post obstructive pneumonia.² Chest radiography can achieve the diagnosis in majority of cases. In case of a negative result, computerised tomography thorax can assist in identification of the foreign body with shape, form, location and guide management. Bronchoscopy has a diagnostic as well as therapeutic role in foreign body aspiration.³ Both rigid and fiberoptic bronchoscopy can be used for diagnosis and retrieval of foreign body.

In our case, the foreign body was incidentally identified on computerised tomography of the thorax performed for empyema. Bronchoscopy further helped to confirm the diagnosis and for definitive management. Empyema secondary to aspiration of foreign body is a rare event.

References

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