Discussion

Pneumothorax occurs only in 2% of sarcoidosis patients. It usually occurs due to rupture of subpleural bullae or necrosis of subpleural granuloma. Pneumothorax with persistent air leak despite chest tube drainage is an indication for VATS pleurodesis or stapling of the air leak. Endobronchial valves are emerging devices with FDA approval for only emphysema reduction in COPD patients or prolonged air leak after lung surgery. Our case showed complete resolution of the air leak and pneumothorax after endobronchial valve placement in a patient with a secondary spontaneous pneumothorax.

Conclusion

Further studies are needed to be conducted for the use of endobronchial valves for other indications besides emphysematous patients and post lung surgery. It has the potential to become an invaluable resource for secondary spontaneous pneumothorax, especially in poor surgical candidates.

Case Presentation

54-year-old African American female with 8 years sarcoidosis history, presented with sudden right chest pain and dyspnea. CXR and CT chest showed right-sided tension pneumothorax. Previous CT chest images showed innumerable cysts and bullae replacing the upper lobes and reticulonodular pattern of the lower lobes (Figure 1). A right chest tube was inserted but with persistent air leak for more than 7 days and worsening pneumothorax (Figure 2). Two endobronchial valves were then placed in the right upper lobe bronchi with complete re-expansion of the lung and resolution of the pneumothorax in 6 days (Figure 3). The patient was then discharged.

References