

A case of micronodules and tree-in-bud changes CT lungs

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Abstract

45 years old, ex-smoker, presented to a general respiratory clinic with history of chronic productive cough. This rare condition should be considered in the differential diagnoses.

Case

45 years old, a British southeast Asian origin, ex-smoker with 20 pack year history, complained of chronic productive cough with occasional wheeze. Past medical history of nasal polyps and

sinus treatment under the ENT. Clinic spirometry confirmed obstructive airways, being treated as Asthma by the primary care. FeNO was 17 ppb in clinic. After his Chest Xray, he had CT chest as below.



Figure 1. Extensive fine nodularity including tree-in-bud pattern change throughout both lower lobes, middle lobe and lingula and to a lesser extent within the anterior aspect of both upper lobes. The fissures do not appear to be involved. There appears to be mild cylindrical bronchiectasis in the left lower lobe, middle lobe and lingula.

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Investigations and results

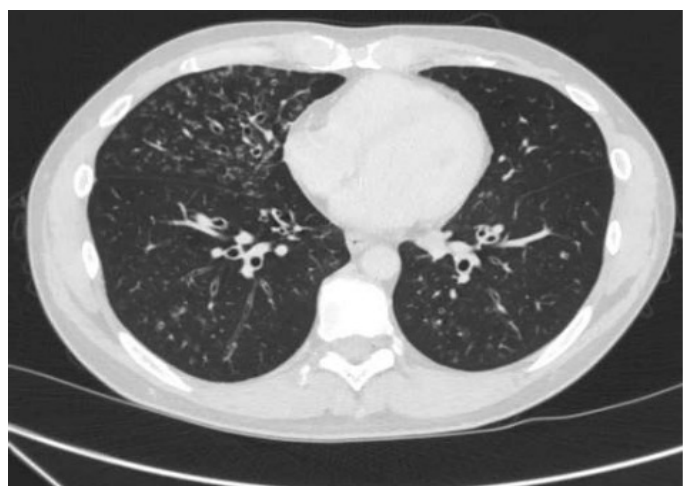
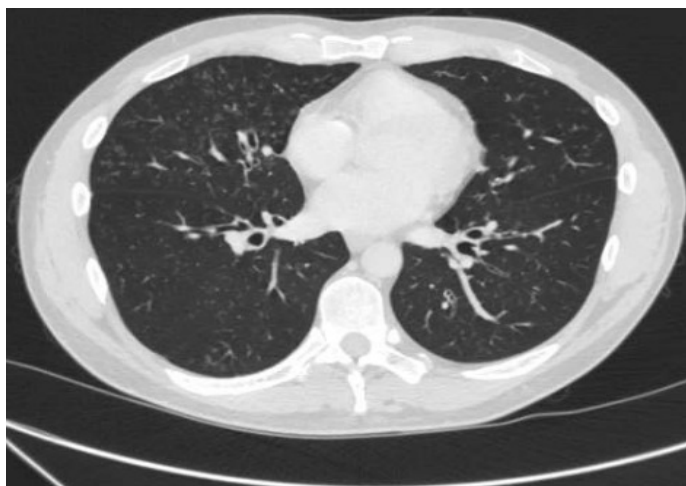
- Bronchoscopy - mucosal biopsy and BAL cytology – evidence of acute inflammation, Microbiology - Haemophilus Influenzae on culture, TB/NTM, Virology, Fungal all negative
- Blood results – Full blood count no evidence of eosinophilia, Autoimmune and Vasculitis screen

negative, ACE level normal, Immunoglobulins slight raise in IgA, no paraprotein band, Hepatitis and HIV screen Negative. CRP and ESR mildly raised.

Management

Patient was treated with Macrolides. See the post treatment CT pictures which showed visible improvement.

What is the diagnosis?



Answer

Diffuse Panbronchiolitis

Diffuse Panbronchiolitis (DPB) is an idiopathic inflammatory disease, well recognised in East Asia and principally affecting the respiratory bronchioles, causing a progressive suppurative

and severe obstructive respiratory disorder. Over 30 years ago, the first case of DPB was described in Japan.

Disease susceptibility may be determined by a genetic predisposition unique to Asians though cases are now recognised in other parts of the world.

Associated with chronic nasal sinusitis.

Main stay of treatment is with long term Macrolides.

References

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