

Fungal Bronchitis and not allergic bronchopulmonary aspergillosis

Chronic Respiratory Disease
Volume 18: 1–2
© The Author(s) 2021
Article reuse guidelines:
sagepub.com/journals-permissions
DOI: 10.1177/14799731211001888
journals.sagepub.com/home/crd



Leyla Pur Ozyigit¹ , Catherine Helen Pashley² 
and Andrew John Wardlaw^{1,2}

Keywords

Fungal bronchitis, anti-fungal, allergic fungal airway disease, severe asthma with fungal sensitisation, Allergic Bronchopulmonary Aspergillosis

Date received: 14 February 2021; accepted: 18 February 2021

We would like to thank Seghal et al. for their interest in our study and acknowledge their contribution to our understanding of the role of fungal allergy in lung disease.^{1,2} They express two concerns. Firstly they question the appropriateness of the term fungal bronchitis and secondly the novelty of the report because they believe it is well-established that anti-fungal therapy is effective in allergic bronchopulmonary aspergillosis (ABPA). Bronchitis is a descriptive term meaning inflammation of the bronchi. This can be qualified by persistence (acute versus chronic), pathology (eosinophilic, neutrophilic) or cause (bacterial, viral, fungal). Symptoms of bronchitis include cough which may be productive of discoloured sputum (often brown or creamy if there is a fungal cause), and impaired lung function. Bronchiectasis is defined structurally as dilated bronchi with the diagnosis made radiologically. Episodes of bronchitis can occur with and without bronchiectasis and bronchiectasis can occur with and without bronchitis. The two are associated, but independent. As our case series described people with a clinical picture of bronchitis caused by fungal infection, the term ‘fungal bronchitis’ appears to us rather apposite. With regards originality we should first say that we question the value of the term ABPA to describe the endotype of airway disease characterised by lung damage due to allergy to airway colonising, thermotolerant, filamentous fungi such as *A. fumigatus*.³ ABPA, which is defined according to restrictive and relatively arbitrary criteria, excludes

the great majority of people with this pattern of disease. We therefore prefer the inclusive term allergic fungal airway disease (AFAD), the criteria for which are IgE sensitisation to *A. fumigatus* or related fungi and the presence of airway disease.⁴ It is the case that some, though far from all the subjects in our series had AFAD, a point made in the paper. Irrespective of the nomenclature used, notwithstanding the studies quoted by the authors, the benefits of anti-fungal therapy in this condition are uncertain. Blinded, placebo controlled trials have shown either no improvement or modest benefit at best.⁵ Clinical experience suggests that while the majority of patients with AFAD/ABPA/SAFS (Severe asthma with fungal sensitisation.) do not respond to anti-fungal therapy, some do, at least some of the time. The main aim of our paper was to make the point that a positive fungal culture is a biomarker for response to anti-fungal

¹ Department of Respiratory and Allergy, Glenfield Hospital, University Hospitals of Leicester NHS Trust, Leicester, UK

² Department of Infection Immunity and Inflammation, Institute for Lung Health, University of Leicester, Glenfield Hospital, Leicester, UK

Corresponding author:

Andrew J Wardlaw, Department of Respiratory Sciences, Institute for Lung Health, University of Leicester, Leicester LE1 7RH, UK; Department of Respiratory and Allergy, Glenfield Hospital, University Hospitals of Leicester NHS Trust, Leicester LE1 5WW, UK.

Email: aw24@le.ac.uk



therapy, whether or not fungal allergy is involved. For the record 7 of the 19 subjects in the *Aspergillus* group and 1 of the 12 in the *Candida* group met the ISHAM criteria for ABPA.

ORCID iD

Leyla Pur Ozyigit  <https://orcid.org/0000-0002-7113-9988>
Catherine H Pashley  <https://orcid.org/0000-0003-4023-3610>

References

1. Sehgal I, Muthu V and Agarwal R. Fungal bronchitis or allergic bronchopulmonary aspergillosis. *Chron Respir Dis* 2021.
2. Ozyigit LP, Monteiro W, Rick EM, et al. Fungal bronchitis is a distinct clinical entity which is responsive to antifungal therapy. *Chron Respir Dis* 2021; 18: 1479973120964448.
3. Wardlaw AJ, Woolnough K and Pashley CH. Lassoing a chimera: the semantics of allergic fungal airway disease. *Clin Exp Allergy* 2015; 45(12): 1746–1749.
4. Rick EM, Woolnough K, Pashley CH, et al. Allergic fungal airway disease. *J Investig Allergol Clin Immunol* 2016; 26(6): 344–354.
5. Agbetile J, Bourne M, Fairs A, et al. Effectiveness of voriconazole in the treatment of *Aspergillus fumigatus*-associated asthma (EVITA3 study). *J Allergy Clin Immunol* 2014; 134(1): 33–39.