

Correspondence

Reply

To the Editor:

Muthu and Agarwal¹ offered interesting insights in their correspondence regarding our article on the diagnosis of allergic bronchopulmonary aspergillosis/mycosis (ABPA/ABPM)² and their recent proposal of a modification to the International Society for Human and Animal Mycology (ISHAM) Working Group criteria for the diagnosis of ABPA with asthma.³

The important difference between the 2 studies is that our criteria were validated not only in patients with ABPA accompanied by asthma, but also in patients with ABPA sans asthma, which develops in the absence of predisposing conditions such as asthma or cystic fibrosis. Muthu et al⁴ reported that 7% of ABPA cases were not accompanied by asthma in their cohort,⁴ which is consistent with the previously reported prevalence of 4% to 33%.⁵ Inclusion of asthma as a mandatory criterion for the diagnosis of ABPA/ABPM would substantially underestimate the number of patients with the disease. In our study, the sensitivities of the ISHAM criteria for pathological and physician-diagnosed ABPM were 77.2% and 82.7%, respectively; however, they decreased to 46.8% and 72.1%, respectively, if the presence of asthma was considered mandatory.²

Another important difference between the 2 criteria is the ability to diagnose ABPM caused by non-*Aspergillus* fungi. As discussed by Muthu and Agarwal,¹ diagnosis of ABPA is unlikely in the absence of allergic sensitization to *Aspergillus fumigatus* (low titer of specific IgE and a negative skin test result); however, ABPM caused by other *Aspergillus* species or filamentous fungi such as *Schizophyllum commune* is still possible in these cases. The lack of appropriate serological tests for non-*Aspergillus* fungi compromises the sensitivity of the ISHAM criteria in clinical practice; the sensitivity for ABPM culture positive for non-*Aspergillus* fungi was 47.8%, whereas that for *Aspergillus*-positive ABPA was 89.9%.² We included a diagnostic criterion “filamentous fungal growth in sputum cultures or bronchial lavage fluid” to improve the sensitivity for non-*Aspergillus* ABPM. For successful fungal culture, appropriate preparation of samples and choice of culture media, along with longer incubation periods, are critical, whereas bronchoscopic sampling, though ideal, is not mandatory. However, even with successful fungal culture, a substantial proportion (28.6%) of the patients with non-*Aspergillus* ABPM fell into the category of probable ABPM in our

study, owing to the lack of appropriate serological tests and atypical phenotypes such as absence of asthma or lower peripheral blood eosinophil counts in this phenotype of ABPM.² Bronchoscopic sampling and microscopic examination of mucus plugs to identify fungal hyphae is useful in these cases for improvement of sensitivity and definite diagnosis. The category of probable ABPM might be useful to avoid irreversible destruction of the airways due to delayed diagnosis.

ABPA/ABPM is a condition in the spectrum of fungal allergy and colonization; therefore, it is not surprising that some diversity exists in clinical characteristics, especially among populations with different ethnic/genetic backgrounds and environmental factors. International studies are crucial to elucidate its clinical characteristics and phenotypes and to improve the diagnosis and treatment of this disease.

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