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Letters to the editor

OVERVIEW

Please submit letters for the editor's consideration within three weeks of receipt of *Clinical Medicine*. Letters should ideally be limited to 350 words, and sent by email to: clinicalmedicine@rcplondon.ac.uk

A cough that doesn't fit the mould

Editor – We read with interest the lesson of the month regarding invasive pulmonary aspergillosis in an immunocompetent patient.[1] We wish to highlight two points. First, the normal range (<40 mg/L) used for *Aspergillus* IgG was extrapolated from a study of 130 patient specimens, which was originally designed to compare the validity of an IgG assay against the standard double effusion test.[2] In order to investigate the utility of *Aspergillus* IgG levels in a clinical setting, we recently carried out a study of IgG levels in age-matched sera from two groups; a respiratory group with clinical suspicion of chronic pulmonary aspergillosis and a control group.[3] A total of 696 IgG levels were available, 348 from each group. The arithmetic mean IgG titre was 37.4 mgA/L (log_{10}; 1.40) in the respiratory group and 22.4 mgA/L in the control group (log_{10}; 1.15) ($p<0.0001$), although the group populations became aligned after accounting for quality assurance variation during the tests. We concluded that a significant overlap in levels does not allow the determination of a discriminatory cut-off value, and therefore interpretation of IgG should be used with caution.

Second, the authors stated that the duration of treatment would typically last at least 3 months. However, the duration of therapy has not been optimally defined.[4] Three months of voriconazole would cost approximately £7,000[5] per patient and long-term voriconazole may expose patients to unwanted side effects.

We hope that these two points highlight issues for consideration in the clinical setting of the diagnosis and treatment of suspected invasive pulmonary aspergillosis and we wondered to what extent long-term voriconazole is required following successful physiotherapy and mucus plug removal? ■

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References

1 Baggott C, Sharp C, Bhatt N, Plummeridge M, Adamali H. Lesson of the month 1: a cough that doesn't fit the mould. *Clin Med* 2015;15 :492–4.
2 Wild G, Bex S, Ward AM. A feather in the CAP? [abstract] *Annual meeting of the European academy of allergy and clinical immunology*. 1998;53 Suppl:194–95.
3 Lee M, Brindle R. *The utility of Aspergillus fumigatus IgG testing in chronic pulmonary aspergillosis (abstract: 002)*. Poster presentation 2014 at Federation of infection societies, Harrogate. Available online at www.fis-infection.org.uk/0001-0022-Diagnostics.pdf [Accessed 12 February 2016].
4 Walsh TJ, Anaissie EJ, Denning DW *et al.* Treatment of aspergillosis: clinical practice guidelines of the Infectious Diseases Society of America. *Clin Infect Dis* 2008;46:327–60.
5 Joint Formulary Committee. *British National Formulary*, 68th edition. London: BMJ Group and Pharmaceutical Press, 2015.

Response

We thank the correspondents for their interest in our lesson of the month 'A cough that doesn't fit the mould'. The two points highlighted regarding the investigation and treatment of *Aspergillus* infection are important and highlight the difficulties in diagnosis and then optimal treatment of this infection.

We acknowledge the limitations of the cited normal range for *Aspergillus* IgG and would agree that this test should not be used in isolation to diagnose invasive Aspergillosis. As stated in our case and in the medical literature,[1] a combination of the clinical scenario, blood serologies (including *Aspergillus* IgG and IgE), radiology, sputum microscopy and culture and tissue biopsy should be used to form the diagnosis. We thank the correspondents for emphasising the important point that a diagnosis of invasive *Aspergillus* disease must be reached by such a synthesis of clinical information.

The correspondents' observations regarding the optimal treatment in this case are also important concerns. We agree that voriconazole should not be first-line therapy for clinical presentations such as that reported; our patient initially received physiotherapy and mucus plug removal via bronchoscopy. It was only after this failed to improve his symptoms that voriconazole was added and this, along with a second bronchoscopy resulted in resolution of his right lower lobe collapse.

As is observed, optimal management of cases such as this is uncertain given their rarity and the absence of robust medical literature. Management must be extrapolated from what evidence does exist. A randomised study of treatment for 3 months with voriconazole compared with amphotericin B for invasive aspergillosis resulted in fewer side effects and improved survival.[2] This trial was conducted in a group with significant immunocompromise following treatment for haematological malignancy. The study duration in this case, in addition to clinical practice in other areas of pulmonary aspergillosis, led to the decision to treat for 3 months. Such decisions must be made in the context of the clinical case. Further studies are needed both to determine the need for treatment and also whether shorter courses of therapy may be effective. ■

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