Invasive fungal infections

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With over 300 million serious fungal infections worldwide, we need to be aware of the size of the problem (<http://www.fungalresearchtrust.org/HowCommonareFungalDiseases2.pdf>) and the need for more diagnostic tools and treatment options.

Given that the mortality of candidemia and septic shock has been shown to increase by 7.6% with every hour of delay in therapy initiation (Kumar A *et al.* ICAAC 2007, poster K-2174), a timely diagnosis is literally vital. A classical approach can provide a diagnosis within 72 hours, through microscopy and cultures. A newer approach based on polymerase chain reaction (PCR) and (1,3)- β -D-glucan (BDG) can shorten the time to diagnosis, but we still have a long way to go in finding diagnostic algorithms with improved sensitivity and specificity.

A recent study by Nguyen *et al.* (*Clin Infect Dis.* 2012; 54(9):1240-8) showed that PCR and blood cultures identified the same *Candida* species in 82% of patients and that PCR had a sensitivity of 80% in diagnosing invasive candidiasis, compared with 56% for BDG. When

combining blood cultures with PCR or BDG, the sensitivity increased to 98% and 79, respectively.

Awareness of fungal infections is of utmost importance because, naturally, the first step to a diagnosis is thinking about a possible infection. Fungi have not always been high on the list of possible etiologies but in modern times they definitely should be considered given the increasing life expectancy, the high number of comorbidities, with diabetes ranking high as comorbidity and cofactor for invasive fungal infections.

When discussing fungi, we should be aware of their worldwide distribution, particularly since travel appears to increase exponentially. News from last week's air flight entertainment magazines pointed out that one day traffic in 2012 is equivalent to one year worth of travel in 2007. Therefore, travel medicine also plays an increasingly important role in diagnosing and treating fungal infections.

For further details on the conference, visit the conference website at <http://www.congrex.ch/eccmid2012/home.html>.

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