

P0005a

Poster Session I

News from the fungal frontier

INCIDENCE OF MIXED INVASIVE ASPERGILLOSIS IN A GENERAL HOSPITAL IN MADRID: AN UNDERESTIMATED ENTITY?

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Objectives: The prevailing view in the scientific literature is that most cases of invasive aspergillosis (IA) are commonly caused exclusively by 1 filamentous fungus. However, the number of cases of IA caused by several filamentous fungi (mixed IA) is unknown. We evaluated the incidence of mixed IA at our hospital during a whole year (2012).

Methods: The study was performed using data from clinical reports of patients admitted to the Gregorio Marañón Hospital (Madrid, Spain) with a positive mould culture. IA was defined according to the revised criteria of the European Organization for Research and Treatment of Cancer (EORTC). IA was considered mixed when ≥ 2 different moulds were recovered from the same sample. Susceptibility to amphotericin B (AMB), itraconazole (IZ), posaconazole (POS) and voriconazole (VZ) was evaluated using broth microdilution methods (CLSI and EUCAST).

Results: Of the 77 patients evaluated, 16 (20.7%) had IA following EORTC criteria. Nine patients (56.25%) were infected by a single species (*A. fumigatus* 'sensu stricto' [8], and *A. flavus* [1]) and 7 patients (43.75%) had mixed IA. Six patients with mixed IA were co-infected with multiple *Aspergillus* species, and only 1 was co-infected with *A. fumigatus* 'sensu stricto' and *Scedosporium apiospermum*. *A. fumigatus* 'sensu stricto' was the species most frequently isolated (71.4%) in mixed IA. Regarding antifungal susceptibility, 2 *A. fumigatus* 'sensu stricto' isolates showed multiazole resistance and had the TR34/L98H mutation in the *cyp51A*. Two cryptic species (*A. lentulus* and *Neosartorya udagawae*) were intrinsically resistant to azoles. All isolates except *A. terreus* and *A. lentulus* were susceptible to AMB.

Conclusions: These data suggest that mixed IA could be underestimated in the clinical setting, with the result that further sampling is required to obtain a picture of its real incidence. Furthermore, isolation of several moulds with different antifungal susceptibility patterns and virulence might complicate therapy and outcome. Close surveillance of clinical isolates is recommended in order to evaluate the real impact of mixed IA.