

P0047

Poster Session I

How to improve fungal diagnosis

ELDERLY VERSUS NON-ELDERLY PATIENTS WITH ASPERGILLOSIS IN THE ICU

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Objective: Aspergillosis is an infection with high burden in the critically ill setting in terms of morbidity and mortality. We sought to compare elderly (older than 75 years old) with non-elderly (younger than 75 years old) critically ill patients with aspergillosis.

Methods: We analysed relevant data from the AspICU study, which is a multicenter web-based surveillance study of *Aspergillus* in Intensive Care Units (ICUs). More than 200 variables were collected including demographic data, clinical characteristics, laboratory and imaging data, antifungal therapy, and mortality outcome 12 weeks after the first positive culture.

Results: Two hundred seventy one patients were included in the analysis. Forty-nine and two hundred twenty two patients were included in the elderly and non-elderly group, respectively. Of those, 150/216 (69.4%) and 34/48 (70.8%) died, respectively.

Non-elderly patients were more likely to be alcohol abusers ($p=0.02$), have fever which was refractory to at least 3 days of appropriate antibiotic therapy ($p=0.02$), and proven invasive pulmonary aspergillosis (IPA) ($p=0.005$) or invasive aspergillosis in general ($p=0.05$). They were more likely to have a broncho-alveolar lavage (BAL) test performed ($p=0.03$) with a positive result ($p=0.03$). Also, they were more likely to have a galactomannan test performed ($p=0.007$) and have a positive direct microscopy of any sample ($p=0.02$). Finally, they were more likely to have antifungal therapy initiated ($p=0.004$).

Elderly patients were more likely to have diabetes ($p=0.03$), and chronic obstructive pulmonary disease ($p=0.03$). They were more likely to have putative IPA ($p=0.05$) and be diagnosed with putative IPA according to the AspICU algorithm ($p=0.01$). Also, they were more likely to have a normal chest x-ray although they were infected ($p=0.02$).

Conclusion: The clinical presentation and underlying conditions in elderly and non-elderly patients with IA differ substantially. Nevertheless, mortality is similar. IA remains a dreadful complication among critically ill patients.