29th ECCMID Amsterdam, Netherlands 13 – 16 April 2019

The congress of ESCMID

O1126 Invasive aspergillosis due to *Aspergillus* section *Usti:* a European multi-centre study

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Background: *Aspergillus* section *Usti* (group *ustus*) are rare causes of invasive aspergillosis (IA) in immunocompromised patients. These molds have decreased azole susceptibility and are associated with poor outcomes. We present results of the largest multicenter study of *Aspergillus* section *Usti* in clinical samples.

Materials/methods: Eighteen European centers from 8 countries participated to the study. Patients with *Aspergillus ustus* isolated in a clinical specimen over the last 10 years were retrospectively identified. Clinical data were collected via a clinical report form (CRF) and available isolates were sent to a reference mycology laboratory. Cases were classified as proven/probable IA (EORTC/MSG criteria) or colonization. All isolates were identified at species level by beta-tubulin/calmodulin sequencing and antifungal susceptibility testing was performed (CLSI method). For treatment/outcome analyses, cases of the current study were pooled with all cases reported in the

literature.

Results: Eighty-eight CRFs were collected: 27 were proven/probable IA and 61 represented colonization. The IA population consisted mainly of non-neutropenic hematopoietic stem cell transplant (63%) and solid organ transplant (23%) recipients, and 52% patients were receiving mold-active prophylaxis. Characteristics of infections are shown in the table. The main pathogenic species was *A. calidoustus* (70%). Mortality was high (56%). *In vitro* activity of isavuconazole was somewhat better than voriconazole or posaconazole. In the pooled analysis of all IA cases (this study and previous reports, N=54), patients with a first-line treatment including voriconazole had better outcomes compared to those with a non-voriconazole regimen (p=0.02), but had a lower proportion of proven IA (p<0.01).

Conclusions: IA caused by *Aspergillus* section *Usti* occurs predominately in non-neutropenic transplant patients receiving mold-active prophylaxis. Despite limited *in vitro* activity, voriconazole may still represent an appropriate therapeutic option. The role of isavuconazole should be further evaluated.

Clinical Data	Microbiologic Data
Invasive aspergillosis (n=27)	
Proven/Probable 9(33%) / 18(67%)	**Antifungal susceptibility testing (n=55)**
Single / multiple sites 21(88%) / 6(22%)	**Drug MIC_{50} / MIC_{90} [µg/ml] (range)**
Localization (>1 possible)	Voriconazole 8/8 (2-16)
Lung 24(89%)	Posaconazole 16/16 (4->16)
Brain 3(11%)	Isavuconazole 2/4 (0.5-16)
Soft tissues 3(11%)	Amphotericin B 0.5/1 (0.25-2)
Other 3(11%)	

MIC_{50}/MIC_{90}: minimal inhibitory concentrations (MIC) of 50% and 90% of the isolates, respectively