P1278

Paper Poster Session VI

Antifungal susceptibility

Identification and determination of drug resistant *Candida* species isolated from hospital-acquired infections

M. Xiao[1], X. Fan[1], S. Chen[2], F. Kong[2], Y. Xu[1]

[1]*Peking Union Medical College Hospital, Beijing, China*

[2]*Centre for Infectious Diseases and Microbiology Laboratory Services- Westmead Hospital, Sydney, Australia*

Objectives: To define antifungal susceptibility patterns of the most common non-*albicans Candida* spp. in China.

Methods: We evaluated the susceptibilities to nine antifungal drugs for *Candida parapsilosis* species complex, *C. tropicalis*, *C. glabrata* species complex and *C. krusei* isolates from patients with invasive candidiasis at 11 hospitals over 3 years. Isolates were identified by MALDI-TOF MS supplemented by DNA sequencing. MICs were determined by Sensititre YeastOne™ using current clinical breakpoints/epidemiological cut–off values to assign susceptibility (or wild-type [WT]), and by CLSI M44-A2 disk diffusion for fluconazole and voriconazole.

Results: Of 1072 isolates, 392 (36.6%) were *C. parapsilosis* species complex. *C. tropicalis*, *C. glabrata* species complex and *C. krusei* comprised 35.4%, 24.3% and 3.7% isolates, respectively. Over 99.3% of isolates were of WT phenotype to amphotericin B and 5-flucytosine. Susceptibility/WT rates to azoles amongst *C. parapsilosis* species complex were ≥97.5%. However, 11.6% and 9.5% of *C. tropicalis* isolates were non-susceptible to fluconazole and voriconazole, respectively (7.1% were resistant to both). Approximately 14.3% of *C. glabrata* sensu stricto isolates (n=258) were fluconazole-resistant, and 11.6% of *C. glabrata* sensu stricto isolates were cross-resistant to fluconazole and voriconazole. All *C. krusei* isolates were susceptible/WT to voriconazole, posaconazole and itraconazole. Overall, 97.7-100% of isolates were susceptible to caspofungin, micafungin and anidulafungin but 2.3% of *C. glabrata* were non-susceptible to anidulafungin. There was no azole-echinocandin co-resistance. Disk diffusion and Sensititre YeastOne™ methods showed >95% categorical agreement for fluconazole and voriconazole.

Conclusions: In summary, reduced azole susceptibility was seen amongst *C. tropicalis*. Resistance to echinocandins was uncommon.