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ePoster Viewing

Mycology

Clinical characteristics and treatment outcomes of patients with candidaemia due to *Candida parapsilosis sensu lato* species at a medical center in Taiwan, 2000-2012

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Objectives: To investigate the clinical characteristics and treatment outcomes of adult patients with candidaemia due to *Candida parapsilosis sensu lato* species and analyze the in vitro susceptibilities of the isolates.

Methods: We evaluated the mycology database of the National Taiwan University Hospital and patients diagnosed with candidaemia due to *C. parapsilosis sensu lato* species from 2000 to 2012. Isolates were identified to the species level by conventional identification methods, matrix-assisted laser desorption/ionization time-of-flight mass spectrometry, and gene sequencing analysis. Susceptibilities of the isolates to nine antifungal agents were determined using the Sensititre YeastOne system (Trek Diagnostic Systems) and were interpreted by clinical breakpoints (CBPs) or epidemiological cut-off values (ECVs) for these agents.

Results: A total of 323 adult patients with candidaemia caused by *C. parapsilosis sensu lato* species were evaluated, including 256 (79.3%) patients with *C. parapsilosis sensu stricto*, 34 (10.5%) with *C. orthopsilosis*, and 33 (10.2%) with *C. metapsilosis*. There were 222 men and 101 women and the median age was 60 years (range, 18 to 103 years). Among them, 178 (55%) had an underlying diagnosis of cancer. The overall 30-day mortality rate was 25% (n=80). Multivariate analysis revealed that shock ($P<0.001$, odds ratio [OR], 33.840, 95% CI=16.400-69.827), antifungal therapy ($P=0.002$, OR, 0.444), central catheter removal ($P=0.02$, OR, 0.348), and abdominal surgery ($P=0.043$, OR, 0.446) were independent prognostic factors of patients with candidaemia due to *C. parapsilosis sensu lato* species. There were no significant differences in 30-day mortality rate among patients with candidaemia caused by the three different species ($P=0.770$). All isolates of *C. metapsilosis*, *C. orthopsilosis*, and *C. parapsilosis sensu stricto* were susceptible to voriconazole. Wild type isolates were susceptible to itraconazole, posaconazole and amphotericin B. Three (9%) *C. metapsilosis* isolates and six (2%) *C. parapsilosis sensu stricto* isolates were not susceptible to fluconazole. Four (2%) *C. parapsilosis sensu stricto* isolates were not susceptible to micafungin or anidulafungin.

Conclusions: There were no significant differences in 30-day mortality among patients with candidaemia caused by *C. parapsilosis sensu stricto*, *C. metapsilosis* or *C. orthopsilosis*. The currently used antifungal agents exhibited good in vitro activities against *C. parapsilosis sensu lato* species isolates.