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P2223 *Candida* isolates causing refractory or recurrent oropharyngeal candidiasis in 11 hospitals across China

Shu-Ying Yu*[1], Yingchun Xu[1]

[1] Department of Clinical Laboratory, Peking Union Medical College, Beijing, China

Background: Epidemiology data including species distribution and antifungal susceptibility profile of the causative fungal species is essential as these data cannot be generalized across countries. In China, data on the relative frequency of C. albicans vs. non-albicans Candida species as etiologic agents of OPC and that on drug resistance of OPC isolates of C. albicans to the currently available antifungals are few. We studied the species distribution and antifungal susceptibilities of Candida isolates causing refractory or recurrent oropharyngeal candidiasis (OPC) in a multicenter study across China (2013-2016).

Materials/methods: Species identification was performed using the Bruker Boityper MALDI TOF MS system supplemented by internal transcribed spacer (ITS) sequencing as required. Antifungal susceptibilities were determined by CLSI M27-A3 broth microdilution methodology.

Results: A total of 558 non-duplicate *Candida* isolates comprising 10 species were obtained from 535 patients with refractory or recurrent OPC. *Candida albicans* was the most frequently isolated species (89.6%), followed by *C. glabrata* (5.2%), *C. tropicalis* (2.9%) and *C. parapsilosis* (0.7%). Most azoles were active against *C. albicans* with susceptibility rates of 96% and 95.8% to fluconazole and voriconazole, respectively. MIC_{50} values of *C. albicans* to fluconazole, voriconazole, itraconazole and miconazole were 1μg/ml, 0.03 μg/ml, 0.25 μg/ml and 0.12 μg/ml, respectively, in present study which were higher than in previous studies of which OPC patients who had not exposed antifungal agents (corresponding MIC_{50} values of 0.25 μg/ml, 0.015 μg/ml, 0.06 μg/ml and 0.03 μg/ml). Except for itraconazole, the MIC_{50} and MIC_{90} values of 58 non-*C. albicans* to other azoles were 2 to 3-fold higher than *C. albicans*. miconazole, amphotericin B, nystatin and 5-flucytosine had high *in vitro* antifungal activity to all the isolates.

Conclusions: The study provides valuable data on the species distribution and antifungal susceptibility of oropharyngeal *Candida* isolates from geographically-diverse areas of China. *C. albicans* remains the most common species but with increasing rates of azoles resistance.