

Candida albicans interdigital foot infection: a case report highlighting the importance of antifungal susceptibility testing

ABSTRACT

Candida species are opportunistic fungal pathogens which are often isolated from immunocompromised individuals. *Candida albicans* is the most frequently isolated species in both superficial and invasive candidiasis. Non-*albicans* species are equally striving in their pathogenic ability, but it is noticed that *C. albicans* continues to exert its relevance as the leading cause of candidiasis. This is confirmed by this case report finding, from the traditional laboratory culture-based phenotypic methods to molecular diagnostic methods and finally DNA sequencing. Antifungal susceptibility pattern was performed using E-test strip to determine the minimum inhibitory concentrations (MICs) of eight antifungal agents from the three main classes against *C. albicans* isolate. The MIC results were read at 24 and 48 h incubation according to Clinical and Laboratory Standards Institute (CLSI) guidelines. The results indicate susceptibility of *C. albicans* to amphotericin B with MIC value of 0.47 µg/mL, anidulafungin with MIC of 0.32 µg/mL; micafungin with MIC of 0.94 µg/mL and caspofungin with MIC of 0.125 µg/mL. The isolate was found to be resistant to all the four azole derivatives tested: fluconazole MIC ≥ 256 µg/mL; itraconazole, posaconazole and voriconazole with MIC values ≥ 32 µg/mL, indicating that the isolate may be azole resistant strain. Determination of the susceptibility pattern of this isolate is paramount for effective management of the case. Use of any echinocandins derivatives may be of help in the treatment of such fluconazole resistant strain. Here, we report a case of interdigital space infection (between 4th and 5th digits) due to *C. albicans* in a 41 year old African man.

Keyword: *Candida albicans*; E-test; Interdigital; African; Superficial