Soyuz Bajrovci-paskali, Shahin Bonakdar, Mehdi Razeghi-Alavijeh

Infectious and Tropical Diseases Research Center, Tabriz University of Medical Sciences, Tabriz, Iran. Tel.: 0512 262 6770

2Department of Mycology, Pasteur Institute of Iran, Tehran 13164, Iran, Tehran, Iran.

3National Cell Bank Department, Pasteur Institute of Iran, Pasteur 13164, Iran, Tehran, Iran.

Poster session 1, September 21, 2022, 12:30 PM - 1:30 PM

Objective: The antifungal resistance development is a major threat in the control of the pathogen infections. In the presented study, the antifungal resistance of C. albicans isolated from different clinical samples was examined.

Methods: A total of 150 C. albicans clinical isolates were collected from four different medical centers in the city of Tabriz, Iran. The collected isolates were subjected to antifungal susceptibility testing using the disk diffusion method. The antifungal susceptibility of C. albicans isolates was determined using the CLSI (2019) guidelines.

Results: The results showed that the 150 C. albicans isolates were resistant to at least one antifungal drug. The most resistant isolates were found to be resistant to fluconazole (73.3%), followed by amphotericin B (70.7%), voriconazole (66.7%), and itraconazole (63.3%). The least resistant isolates were found to be resistant to flucytosine (22.2%). The results also showed that the isolates were resistant to a combination of antifungal drugs, indicating the presence of multidrug resistance.

Conclusion: The high rate of antifungal resistance in C. albicans isolates emphasizes the need for the development of novel antifungal strategies to combat this pathogen. Further studies are needed to explore the mechanisms of antifungal resistance in these isolates and to develop effective treatment options.