INTRODUCTION AND PURPOSE

Candidemia due to uncommon Candida species (non-C. albicans, non-C. parapsilosis complex, non-C. glabrata complex, non-C. tropicalis, and non-C. krusei) accounts for approximately less than 5% of cases of candidemia. Those species are featured by showing a low antifungal susceptibility, but are poorly studied.

We studied the frequency, molecular identification, antifungal susceptibility, and capacity to form biofilm of uncommon Candida spp. isolates causing candidemia in patients admitted to Hospital Gregorio Marañón hospital, Madrid (Jan 2007 - Dec 2016).

METHODS

18 episodes of uncommon species causing candidemia

Molecular identification of isolates by sequencing of ITS region

Antifungal susceptibility by EUCAST E. Def. 7.2 and comparison with the susceptibility of C. albicans isolates (n=54)

Biofilm formation by crystal violet and XTT reduction assay

RESULTS

We found 18 episodes of candidemia caused by uncommon Candida species concerning 2.6% of all the episodes recorded in the institution. The species found after molecular identification are shown in Figure 1. The proportion of episodes per year ranged between 0% and 6% and a clear trend over time in the isolation of these species was not found (Figure 2).

Figure 1. Species distribution of uncommon Candida spp.

The overall antifungal susceptibility of the uncommon Candida spp. is shown in Table 1, and it was significantly lower than that showed by C. albicans isolates.

Table 1. Antifungal susceptibility of uncommon Candida spp. and C. albicans isolates.

CONCLUSIONS

Uncommon Candida species accounted for 2.6% of the episodes of candidemia and no emergence in the isolation of these species was found. Resistance to fluconazole was high and isolates showed a low or moderate capacity to form biofilms.