Unequal distribution of antifungal susceptibility among *Candida* spp. isolates of the female genitourinary tract

Filipa Oliveira Castro1,2, Francisca Bastos1,2, Mariana Zagalo Fernandes1,2, José Martinez-de-Oliveira1, Ana Palmeira-de-Oliveira1,2,3, Ana Rita Ferrão1,2,4, Paula Gouveia Pestana1,2,4, Joana Rolo1,2

1 CICS-UBI – Health Sciences Research Centre, University of Beira Interior, Covilhã, Portugal.
2 Faculdade de Ciências da Saúde, Universidade da Beira Interior, Covilhã, Portugal.
3 Labfit-HPRD: Health Products Research and Development Lda, Covilhã, Portugal.
4 CHUCB – Centro Hospitalar Universitário Cova da Beira, Covilhã, Portugal

filipa.daniela.castro@ubi.pt

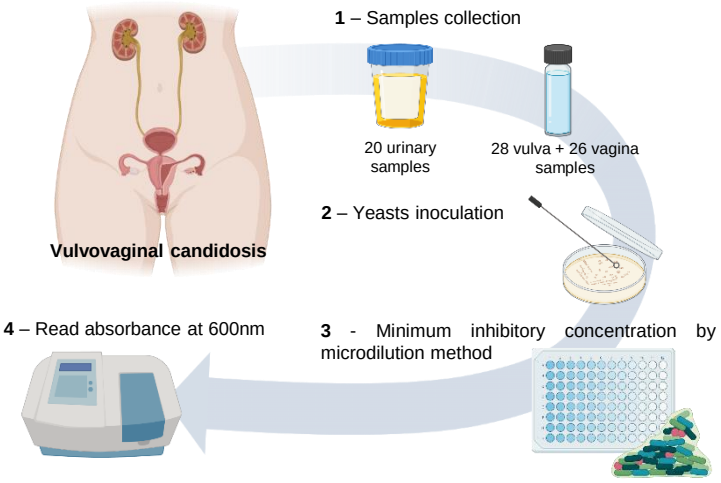
Introduction

Among the known superficial mycotic infections, **vulvovaginal candidosis** is the second most common cause of vaginitis. However, there is still an incomplete picture of the relationships between vulvovaginal and urinary infections, as well as the factors governing such associations. These relationships could be crucial for a comprehensive understanding of the vaginal and urine mycobiome and its connection to global public health.

Aim

We aimed to compare the species distribution and antifungal susceptibility profiles of *Candida* spp. isolates of the female genital and urinary tract.

Methods



Results

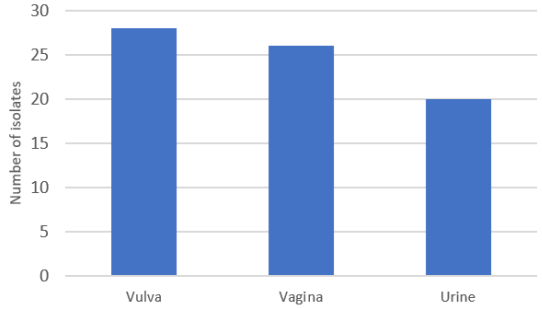


Fig. 1. Number of *Candida* isolates in the three niches

Results

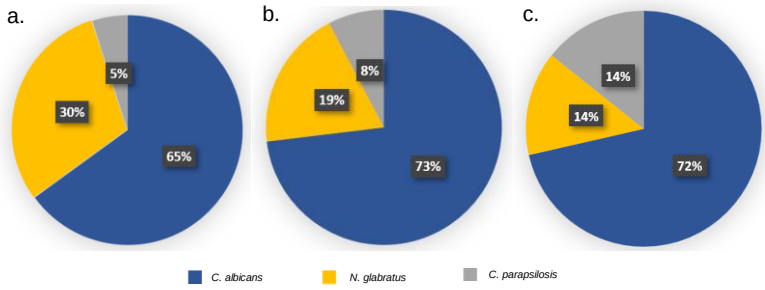


Fig. 2. Distribution of *Candida* species in (a.) urine, (b.) vagina and (c.) vulva.

	MIC fluconazole			MIC clotrimazole		
	C. albicans	*N. glabratus*	*C. parapsilosis*	*C. albicans*	*N. glabratus*	*C. parapsilosis*
Urine	≤ 2	≤ 2	≤ 2	≤ 1	≤ 1	≤ 1
Vulva	≤ 2	≤ 32	≤ 2	≤ 2	≤ 2	≤ 2
Vagina	≤ 2	≤ 64	≤ 2	≤ 2	≤ 8	≤ 2

Table 1. Minimum inhibitory concentration with fluconazole and clotrimazole in three niches.

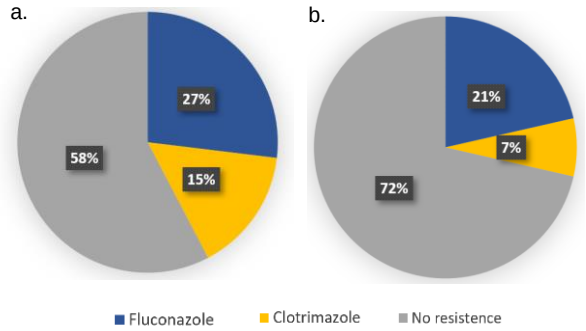


Fig. 4. Percentage of isolates resistant to fluconazole and clotrimazole from the (a.) vagina and (b.) vulva.

Conclusion

The yeast species distribution in the female genital tract was similar, but the antifungal susceptibility profiles were different. Vaginal isolates were found to be more resistant to antifungals, evidencing the higher pressure to develop resistance in this specific niche.

Acknowledgments

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REFERENCES

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CLSI, Reference Method for Broth Dilution Antifungal Susceptibility Testing of Yeasts; Approved Standard-Fourth Edition., in M27, Clinical and Laboratory Standards Institute: Wayne, PA