

A STUDY OF ORAL CANDIDIASIS IN A PORTUGUESE DENTAL CLINIC DURING A ONE YEAR PERIOD

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Candida species are frequently found in the oral cavity. This has been attributed to the ability of yeasts to adhere to oral surfaces and to host factors that favour *Candida* colonization and subsequent infection. Indeed, asymptomatic carriage may compel individuals to a higher risk of complications through yeast infections if they become immunosuppressed. Therefore, *Candida* species identification could be used in general dental practice for treatment control, risk evaluation and even for patient motivation in the prevention of disease. To the authors' knowledge evaluation of oral candidiasis prevalence and etiologic evaluation is not yet available in Portugal. Thus, the main aim of this study was to determine the incidence rate of oral *Candida* species among patients of a Portuguese dental clinic in Braga. A total of 111 patients were analysed. Samples were collected and directly cultured in CHROMagar - *Candida*. Isolated yeasts were identified by polymerase chain reaction (PCR). Specifically, genomic DNAs were extracted using the commercially available QIAamp® DNA mini kit. Species identification of the isolates was performed by PCR using primers for *Candida* DNA topoisomerase II genes [1]. The frequency of candidiasis, defined by the recovery of at least one *Candida* species in culture, was found to be 58.6% (65 out of 111). *Candida albicans* was the most frequent species found (81.8%). Among Non- *C. albicans* *Candida* (NCAC) species recovered, *Candida glabrata* and *Candida parapsilosis* accounted for 5.2%, each, *Candida tropicalis*, 2.6% and *Candida guilliermondii*, 1.3%. Three CHROMagar - *Candida* isolates (3.9%) were not identified. Polymicrobial cultures with two different *Candida* species occurred in eight patients (12.3 %). The most common combination of *Candida* species was *C. albicans* and *C. glabrata* (50.0%). *C. albicans* with *C. tropicalis* occurred in 25.0% of the cases, while *C. albicans* with *C. parapsilosis* and *C. guilliermondii* with *C. parapsilosis* were both found in 12.5% of the situations. The results showed that the main etiological agent of oral candidiasis is *C. albicans*. However, there is an important participation of NCAC species. Notably, besides *C. parapsilosis*, all the other NCAC species were exclusively recovered from polymicrobial cultures. This study suggests that the incidence rate of oral candidiasis in the Portuguese population is similar to the observed in other countries.

(1) Kanbe et al. 2002. Yeast 19:973-989