

## PREVALENCE OF *CANDIDA* SPECIES IN NECROTIC PULP WITH CHRONIC PERIAPICAL PROCESSES

Natalia Nastri<sup>1</sup>, Maria Nastri<sup>1</sup>, Virginia Jewtuchowicz<sup>1,2</sup>, Maria Mujica<sup>2</sup>, Cristina Iovanniti<sup>2</sup>, Ariel Gualtieri<sup>3</sup>, José Ponton<sup>4</sup>, Alcira Rosa<sup>1</sup>

<sup>1</sup> Department of Microbiology, and Parasitology, Faculty of Dentistry, University of Buenos Aires, Argentina.

<sup>2</sup> Department of Microbiology, Faculty of Medicine, University of Buenos Aires, Argentina.

<sup>3</sup> Department of Biophysics, Faculty of Dentistry, University of Buenos Aires, Argentina.

<sup>4</sup> Department of Immunology, Microbiology and Parasitology, School of Medicine and Odontology University of Basque Country, Leioa, Spain.

### ABSTRACT

The aim of this study was to identify species of the genus *Candida* in mucosa of oral cavity and in single-rooted teeth with pulp necrosis with chronic endodontic periapical processes, with radiographic images  $2\pm 4$  mm and without clinical symptomatology, in immunocompetent patients. The study included 82 immunocompetent patients of both sexes aged 18-70 years with a clinical dental diagnosis of septic pulp necrosis. Samples were taken from root canals with sterile # 25 paper points and from oral mucosa with a sterile swab. Seven different *Candida*

species were identified (*C. albicans*, *C. dubliniensis*, *C. guilliermondii*, *C. krusei*, *C. parapsilopsis*, *C. tropicalis* and *C. glabrata*). All of them were present in oral mucosa, while two of them (*C. parapsilopsis* and *C. glabrata*) were not identified in the periapical zone of necrotic canals. Considering all the samples isolated from oral mucosa, there was a significantly greater frequency of *C. albicans* than there was in the periapical zone of necrotic canals.

Key words: *Candida*, Dental Pulp Necroses.

## PREVALENCIA DE ESPECIES DE *CANDIDA* EN PULPAS NECRÓTICAS CON PROCESOS PERIAPICALES CRÓNICOS

### RESUMEN

El propósito de este estudio fue identificar especies del género *Candida* en mucosa de cavidad bucal y dientes unirradiculares con necrosis pulpar con procesos periapicales crónicos de origen endodóntico con imágenes radiográficas entre  $2\pm 4$  mm sin sintomatología clínica en pacientes inmunocompetentes. El estudio incluyó 82 pacientes inmunocompetentes de ambos sexos con edades entre 18-70 años con diagnóstico clínico dentario de necrosis pulpar séptica. Las muestras fueron obtenidas del conducto radicular con conos de papel estéril # 25 y de la mucosa bucal mediante hisopo estéril. Se identificaron 7

especies diferentes de *Candida* (*C. albicans*, *C. dubliniensis*, *C. guilliermondii*, *C. krusei*, *C. parapsilopsis*, *C. tropicalis* y *C. glabrata*). Todas estuvieron presentes en mucosa bucal, mientras que dos de ellas (*C. parapsilopsis* y *C. glabrata*) no se identificaron en zona periapical de conductos con necrosis. Del total de las muestras aisladas de mucosa bucal hubo una frecuencia significativamente mayor de *C. albicans* que la proporción de estas levaduras en la zona periapical en conductos con necrosis.

Palabras clave: *Candida*, necrosis de la pulpa dental.