

## UMP. 519

**Virulence of *Candida parapsilosis* sensu stricto from Argentinean patients with Candidemia, biofilm expression and response profile to antifungal agents**

L. Rodriguez Coyago<sup>1</sup>, A. Facente<sup>2</sup>, F. Magariños<sup>3</sup>, H.D. Santillan<sup>4</sup>, V. Jewtuchowicz<sup>5,\*</sup>

<sup>1</sup> universidad de Buenos Aires, microbiología, Buenos Aires, Argentina

<sup>2</sup> Hospital HIGA Gandulfo, Laboratorio de Microbiología, Lomas de Zamora, Argentina

<sup>3</sup> Hospital HIGA Gandulfo, Laboratorio de Microbiología, Lomas de Zamora, Bs As, Argentina

<sup>4</sup> Hospital HIGA Gandulfo, Oncología Clínica, Buenos Aires, Argentina

<sup>5</sup> Universidad de Buenos Aires, Microbiología, Caba, Argentina

**Background:** *Candida parapsilosis* sensu stricto had emerged as major nosocomial pathogens, being the second most frequently isolated yeast after *C. albicans* from candidemia. Our aim was to analyze the virulence and the response to antifungal agents, of the species *C. parapsilosis* sensu stricto from blood cultures of Argentinean patients with candidemia and to know how this environment impact in virulence

**Methods & Materials:** A basic and retrospective study was designed for 75 cryopreserved isolates, 25 from blood, 28 from buccal cavity and 22 from skin. First they were identified based on color in chromogenic medium, micro-morphology in 1% milk agar-Tween 80, and Vitek2 (BioMérieux, Francia) systems. The molecular characterization was made by PCR with specific primers and Minimum Inhibitory Concentration (MIC) was determined for each antifungal agent on the study strains using CLSI M27-A3. Biomass biofilm quantification was studied through crystal violet on two culture media YPD and RPMI 1640 using well microtiter plates. Isolates were categorized as high ( $\geq 0.410D$ ), low (0.11-0.40 OD) or non-producers ( $\leq 0.10$  OD). The InfoStat 2016 statistical software was used for statistical calculation, considering a p value lower than alpha error ( $\alpha = < 0.05$ ) significant.

**Results:** Out of the 75 isolates of the *C. parapsilosis* complex were reconfirmed to be *C. parapsilosis* sensu stricto. 20 strains derived from blood (80%) were sensitive to fluconazole, 100% to voriconazole, (96%) to Caspofungin. and 100% of the strains were wild type to amphotericin.

In the biofilm biomass assay, higher absorbance levels were reached with YPD medium ( $p \leq 0.05$ ). 96% (24/25) of the blood, 82.1% (23/28) buccal and 72.7% (16/22) skin yeasts were high biofilm producers. Isolates from blood environment are likely to be more virulent than those isolated in buccal and skin conditions (Wilcoxon test  $p \leq 0.05$ ).

**Conclusion:** Biofilm-forming capacity of the *C. parapsilosis* sensu stricto species depends on the strain. However, conditions in the environment may affect or determine this species virulence potential. YPD medium is more effective and less expensive than RPMI to stimulate biofilm growth at 24 hours. Both, buccal and the skin contain highly biofilm-producing strains, both of which can be routes of infection related to health care.

<https://doi.org/10.1016/j.ijid.2018.04.4069>

## UMP. 521

**Localized histoplasmosis during treatment with adalimumab**

M. Cobos<sup>1,\*</sup>, T. Socarras Gomez<sup>1</sup>, C. Perroni<sup>2</sup>, N. Bitar<sup>3</sup>, P. Featherston<sup>4</sup>, D. Giacomone<sup>5</sup>

<sup>1</sup> Facultad de Ciencias Médicas Universidad Nacional de La Plata, Carrera de especialización en Infectología, La Plata, Argentina

<sup>2</sup> Hospital de niños de La Plata, Cirugía plástica y quemados, La Plata, Argentina

<sup>3</sup> Clínica de la Ribera, Microbiología, La Plata, Argentina

<sup>4</sup> Hospital San Juan de Dios de La Plata, Micología, La Plata, Argentina

<sup>5</sup> Hospital Italiano de La Plata, Reumatología y enfermedades autoinmunes, La Plata, Argentina

**Background:** Histoplasmosis is an opportunistic systemic micro-sis. In Argentina, the basin of the Río de la Plata is the most prevalent área. Lung involvement is the most frequent form of presentation and most patients have disseminated at the time of diagnosis, being the extrapulmonary manifestation exceptional. In immunosuppressed individuals both infected with human immunodeficiency virus and those treated with biological agents increased risk of developing disseminated histoplasmosis with severe symptoms that can lead to death.

**Methods & Materials:** He was treated with methotrexate (Mtx) until July 2013, with remission and subsequent suspension of medication. He presented joint regrowth in January 2014, for which he restarted treatment.

In September 2015, he presented uveitis, which is why he started treatment with Adalimumab (anti-TNF); being clinically inactive in April 2016.

In July 2017, the patient complained of granulomatous formation on the hard palate and tumor in the right nostril, without general symptoms.

**Results:** Metotrexate and adalimumab were discontinued.

Magnetic resonance of the facial massif was performed, demonstrating the presence of an inflammatory lesion on the hard palate without bone invasion. As for the nasal mass, it was recognized as a polypoid formation arising from one of the turbinates. Chest and abdominal scans were normal.

In August of 2017, surgery was performed on both lesions. The microbiological culture of the lesion was negative for common bacteria and mycobacteria. In the mycological culture, *Histoplasma capsulatum* was isolated.

Treatment was carried out with itraconazole.

**Conclusion:** Therapy with tumor necrosis factor blockers has revolutionized the treatment of various autoimmune disorders, but the Histoplasmosis can complicate the treatment, Worldwide, in the pediatric population, there are no published cases of presentation with granulomatous compromise on the hard palate associated with nasal polypoid mass in the absence of disseminated disease and pulmonary compromised

<https://doi.org/10.1016/j.ijid.2018.04.4070>