

6th World Congress and Expo on **Applied Microbiology**
&
8th Edition of International Conference on **Antibiotics, Antimicrobials & Resistance**
&
12th International Conference on **Allergy & Immunology**
October 21-22, 2019 Rome, Italy

***In vitro* assessment the antifungal activity of *Dissotis multiflora* (Melastomataceae) and *Paullinia pinnata* (Sapindaceae) leaves extracts on *Candida* Species-Experimental Study**

Albert Ngandeu Ndjomatchoua

Department of Microbiology, Cameroon

Fungal infections remain strong recrudescences in the World despite the range of antifungals present on the market. It is therefore necessary to search for new substances as a solution to the conventional drugs.

Cameroon is a country with an immense wealth of medicinal plants, used in traditional medicine without scientific bases to treat various diseases. The aim of this study was to evaluate the antifungal activity of *Dissotis multiflora* and *Paullinia pinnata*. Of each plant, one ethanolic extract, one methanolic fraction and one ethyl acetic (70/30 %) fraction were tested against the growth of *Candida* strains. The combination of methanolic fractions of these plants were also tested. The fungal strains were isolated from vaginal swab of women at the sampling unit of the Yaoundé University Teaching Hospital (CHUY) from March 15th to July 30th, 2017. Identification test blastosis and the gallerie method allowed to differentiate *Candida albicans* ATCC37037 from *Candida krusei*, *Candida tropicalis*, *Candida parapsilosis*, *Candida haemolinitii* and *Candida lipolytica* in the Bacteriology laboratory of the CHUY. The antimicrobial activity of the extracts was carried out on agar medium using (aromatogram) and microdilution method. The effect of the combination of methanolic fractions were assessed by the chessboard method. Phytochemical analysis of crude extracts of *D. multiflora* and *P. pinnata* revealed the presence of secondary metabolites such as phenols, tannins, anthraquinones, alkaloids, saponins, steroids and flavonoids in both extracts. In general, all fungal strains were susceptible to different extracts and fractions with inhibition diameters ranging from 10.33 mm for methanolic fraction of *D. multiflora* against *C. parapsilosis* to 19 mm for the same fraction against *C. haemolinitii*). Both the MICs and MFCs of active extracts ranged from 0.78 to 12.5 mg / ml and 1.56 to 25 mg/ml, the majority being fungicidal. The combinations showed significant antifungal activity compared to those fractions taken individually, especially with MICs reductions of the order to 75%. The antimicrobial activities of the molecules present on these plants could justify their use in traditional medicine in the treatment of candidiasis.