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Turbidometric evaluation of polyene-azole antagonism in *C. albicans*. Y. H. SAMARANAYAKE, L. P. SAMARANAYAKE* and S.K.W. YEUNG. (Oral Bio-Sciences, Faculty of Dentistry, University of Hong Kong, Hong Kong, SAR, China)

Combined drug regimens of various antifungals including amphotericin B (AmB) and azoles have been developed in recent years to eradicate oropharyngeal candidiasis in compromised patients. Clinically, such combination therapy appear to confer antagonism upon otherwise fungicidal concentrations of AmB in *C. albicans* pre-exposed to triazoles. Therefore, the purpose of this study was to evaluate the latter phenomenon of AmB antagonism in *C. albicans* pre-exposed to the triazole fluconazole. The growth inhibition by varying concentrations of AmB in seven isolates of *C. albicans* pre-exposed to fluconazole (50µg/ml) for 18 hrs, was measured turbidometrically using a SOFTmax PRO software programme and a Microplate Spectrophotometer (Spectramax 340: Tunable Microplate Reader, Molecular Devices Corp, USA). Appropriate controls were included. The antagonism of AmB activity was observed in 5, 4, 2 and a single isolate for 0.5, 1, 2, and 3 µg/ml of the antifungal, respectively. In a majority of *Candida* isolates antagonism was seen within a concentration range of 0.5-1.0 µg/ml AmB; one strain (HK1-Sa) was resistant to 3µg/ml of AmB. Higher concentrations of AmB (>3µg/ml) killed both the controls and fluconazole pre-exposed *Candida* cells. The results were analysed using one-way ANOVA and no significant differences were observed, i) between the periods of antagonism for any of the AmB concentrations or ii) in the maxima of the growth curves obtained for all the test and control *Candida* isolates). We conclude that the SPECTRAmax system is a useful tool to evaluate *in vitro* pharmacodynamic interactions between antifungals within a fluid culture system, and provides temporal information that can not be obtained using traditional plate assay systems. Supported by the Research Grants Council of Hong Kong and the CRCG of the University of Hong Kong, Hong Kong SAR, China. <lakshman@hkucc.hku.hk>

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