TITLE: Phenotypic switching promotes differential interaction of *Candida tropicalis* with peritoneal exudate cells.

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Candida tropicalis (Ct) is one of the most clinically relevant *Candida* species. Previous studies demonstrated that the event of phenotypic switching is associated with altered virulence traits in *Ct.* This study aimed to evaluate the effect of phenotypic switching on the interaction of *C. tropicalis* with BALB/c mouse peritoneal exudate cells (*PECs*). For this, three morphotypes strains of the 49.07 switching system (Parental/clinical isolate – smooth colony morphology; and two variants, Crepe and Rough - structured colonies morphologies) were used. The *PEC*s were obtained according to the National Council for the Control of Animal Experiments. *PECs* were co-cultivated with the morphotypes (ratio 5:1 – MOI coefficient) at 37 ºC for 2 h. After cells fixation and staining, the percentage of phagocytosis and morphogenesis of the *C. tropicalis* morphotypes were determined. All morphotypes were phagocytosed by *PECs*, although the Rough morphotype was less phagocytosed than its Parental counterpart ($p=0.0234$), indicating that they are differently recognized by *PECs*. The switching promoted strains with higher ability of filamenting when co-cultivated with *PECs*. The Parental strain (clinical isolate) exhibited 6% of filamentous forms (hyphae and pseudohyphae) and the remaining 94% were yeast cells; for the Crepe and Rough variants the percentage of filamentous forms were significantly higher ($p<0.0001$), being 66 % for the Crepe variant and 78 % for the Rough variant. Filamentous forms are related to *Candida* pathogenicity, and also promotes evasion of phagocytosis. The results indicate that phenotypic switching in *C. tropicalis* can generate morphotypes that present differentiated morphogenesis when co-cultivated with *PECs*, which can alter the recognition of *C. tropicalis* by the immune components of phagocytic cells, facilitating its evasion, phagocytosis and survival into the host.

Keywords: Phagocytosis, *Candida tropicalis*, immune system, phenotypic switching.

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