**Candida albicans isolates from a Malaysian hospital exhibit more potent phospholipase and haemolysin activities than non-albicans Candida isolates**

**ABSTRACT**

This study was aimed at determining the phospholipase and haemolysin activity of Candida isolates in Malaysia. A total of 37 Candida clinical isolates representing seven species, Candida albicans (12), Candida tropicalis (8), Candida glabrata (4), Candida parapsilosis (1), Candida krusei (4), Candida orthopsilosis (1) and Candida rugosa (7) were tested. In vitro phospholipase activity was determined by using egg yolk plate assay whereas in vitro haemolysin activity was tested by using blood plate assay on sheep blood Sabouraud's dextrose agar (SDA) enriched with glucose. Phospholipase activity was detected in 75% (9 out of 12) of the C. albicans isolates. Among the 25 non- C. albicans Candida isolates, phospholipase activity was detected in only 24% of these isolates. The phospholipase activity of C. albicans was significantly higher than that of the non- C. albicans Candida isolates (P=0.002). Haemolysin activity was detected in 100% of the C. albicans, C. tropicalis, C. glabrata, C. krusei, C. parapsilosis, and C. orthopsilosis isolates while 75% of the C. krusei isolates and 12.3% of the C. rugosa isolates showed haemolysin activity. The haemolytic activity of C. albicans was significantly higher than that of the non- C. albicans Candida isolates (P=0.0001). The findings in this study indicate that C. albicans isolates in Malaysia may possess greater virulence potential than the non-albicans species.

**Keyword:** Candida albicans; Malaysian hospital; Phospholipase; Haemolysin activities; Non-albicans Candida isolates