

## ***EFFECT OF CITRUS LIMON ESSENTIAL OILS (Citrus limon L.) ON Candida albicans CYTOMORPHOMETRIC***

### **ABSTRACT**

**Background :** *The most commonly fungal infections found in the oral cavity are oral candidiasis which largely caused by Candida species, particularly Candida albicans. Candida infection increase because its difficult to treat and associated with antifungal drugs resistance. These prompt the researchers to continue develop new drugs and compounds as well as alternative therapies including from natural sources which have antifungal activity to treat fungal infections. Allegedly, components limonene,  $\beta$ -pinene and  $\gamma$ -terpinene contained in Citrus limon essential oil has quite good antifungal activity against Candida albicans.*

**Objectives :** *The aim of this research was to examine and analyze the effect of Citrus limon essential oils on Candida albicans cytomorphometrics.*

**Method :** *The research used post test only controls group design. Antifungal activity result of the pre-elementary study subdivided into 1.56%, 1.37%, 1.17%, 0.98% and 0.78% of concentration Citrus limon essential oil by Candida albicans inoculum and incubated for 24 hours and 48 hours. After incubation Candida albicans were fixed and dried then observed used scanning electron microscope.*

**Result :** *Effective concentration of Citrus limon essential oils which affect cytomorphometric of Candida albicans cells at 1.37% and 1.56% concentrations with 48 hours incubation period.*

**Conclusion :** *Candida albicans undergoing necrosis process through cytomorphometric changes after administration Citrus limon essential oil at a concentration of 1.56% and 1.37% with 48 hours incubation period.*

**Key words :** *Citrus limon, Candida albicans, necrosis, cytomorphometric*