

**ANTIFUNGAL AKTIVITY OF THE COMBINATION OF MIANA LEAVES  
EXTRACT (*Coleus scutellariodes (L) Benth*) AND BETEL LEAVES  
EXTRACT (*Piper betle*) AGAINST THE GROWTH OF *Candida albicans***

Fani Salsabilah Nasution

**ABSTRACT**

**Background:** *Candida albicans* is a normal flora found in the human body. However, in certain circumstances it can be pathogenic. One of the infections caused by *Candida albicans* is vulvovaginal candidiasis. The treatment given is the azole group such as ketoconazole. Ketoconazole can cause side effects such as nausea and stomach ache. Miana leaf and betel leaf are natural ingredients that have active antifungal compounds which can be used as alternative medicine. Miana leaf contain compounds such as flavonoid, saponin, tanin, and triterpenoid. Betel leaf contain compounds such as flavonoid, essential oil, saponin, and tanin.

**Objective:** Know and analyze phytochemical tests miana leaf and betel leaf extracts, as well as the antifungal activity of a combination of miana leaf and betel leaf extracts.

**Method:** This research uses *post-test only with a controlled group*. Antifungal activity test using the well diffusion method with a combined concentration of miana leaf and betel leaf extracts (80:20%, 50:50%, 20:80%), miana leaf extract 100%, betel leaf extract 100% on *PDA*. The inhibition zone formed was observed and measured using a caliper, data obtained was tested with *One Way* ANOVA and continued with *post hoc* Bonferroni.

**Results:** The average zone of concentration inhibition miana 80%:betel 20% is 7,16mm, miana 50%:betel 50% is 9,06mm, and miana 20%:betel 80% is 16,33mm. The results of the *One Way* ANOVA test there was a significant difference between the combination of miana leaf extract and betel leaf extract in inhibiting the growth of *Candida albicans*.

**Conclusion:** The highest inhibition zone is found at miana 20%: betel 80% with an average diameter is 16,33mm. Lowest inhibition zone is found at miana 80%:betel 20% with an average is 7,16mm.

**Keywords:** Antifungal, *Candida albicans*, Combination of miana leaf and betel leaf extracts.