

Erratum to “Antifungal Ability as an Antimicrobial of Eucalyptus Oil (*Melaleuca leucadendra*) in Inhibiting the Growth of *Candida albicans*” [Published Issue of Indonesian Journal of Clinical Pathology and Medical Laboratory July 2025, 31(3): p.280, 282]

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This erratum is to explain a typographical error in Title, abstract and content that occurred in the published issue of Indonesian Journal of Clinical Pathology and Medical Laboratory Volume 31, Number 3 in July 2025, pages 280 and 282. The error was in writing the Title with no space, a typo of word at page 280 and 282. We have included the corrections below.

TITLE

Antifungal Ability as an Antimicrobial of Eucalyptus Oil (*Melaleuca leucadendra*) in Inhibiting the Growth of *Candida albicans*

ABSTRACT

The Indonesian community recognizes eucalyptus oil as one of the traditional medicines. Eucalyptus oil is known for its antimicrobial properties, which are antibacterial, antiviral, and antifungal. This study aimed to determine the antifungal effect as an antimicrobial of eucalyptus oil (*Melaleuca leucadendra*) produced by MSME Sendang Arum Lamongan in inhibiting the growth of *Candida albicans*. The research used an experimental post-test-only control group design with the antifungal diffusion test method. Sampling was done by simple random sampling with eucalyptus oil concentrations of 20%, 40%, 60%, 80%, and 90%. The data obtained was inhibition zone diameter, which was analyzed using IBM SPSS statistics 26 software. In this study, the diameter of the inhibition zone of positive control, negative control, 40% concentration, 60% concentration, 80% concentration, and 90% concentration was 19.63 mm, 0.00 mm, 26.36 mm, 41.15 mm, 49.69 mm, 56.09 mm, 61.36 mm, respectively. Non-parametric statistical analysis using the Kruskal-Wallis test obtained $p < 0.05$, indicating an effect between eucalyptus oil (*M. leucadendra*) on the ability to inhibit the growth of *C. albicans*. The post-hoc test with Dunnett T3 found that the concentration of eucalyptus oil 40%, 60%, 80%, and 90% had significant differences from the positive control (nystatin 100 IU). Eucalyptus oil (*M. leucadendra*) can inhibit the growth of *Candida albicans*. Therefore, eucalyptus oil has great potential as an alternative or adjunctive therapy for treating candidiasis caused by *Candida albicans*.

Keywords: Eucalyptus oil, *Melaleuca leucadendra*, *Candida albicans*, public health

CONTENT

Table 4. Results of laboratory analysis of eucalyptus oil of MSME Sendang Arum Lamongan

Parameter	Indonesia National Standard	Result	Measuring Device
Specific gravity 25 °C (g/mL)	0.900-0.930	0.911	Pycnometer
The refractive index in 20°C	1.450-1.470	1.465	Refractometer
Optical rotation (°)	-4° until 0°	-	Polarimeter
Solubility in ethanol	Clear	Clear	Ethanol 80%
1,8-cineole concentration (%)	Super: >60% Major: 55%-60% Primary: 50% - <55%	72.30	Gas chromatography
Color	Colourless, greenish/yellowish and clear	Clear and greenish	Visual
Odor	Typical eucalyptus odor	Typical eucalyptus odor	Sense of smell

RESULT

In this study, the inhibition ability of eucalyptus oil against *Candida albicans* can be seen in Table 1. According to the Clinical and Laboratory Standards Institute (CLSI) (Table 2), nystatin 100 IU positive control has a sensitive interpretation if an inhibition zone of ≥ 15 mm is formed, intermediate if an inhibition zone of 10-14 mm is obtained, and resistant if the inhibition zone formed is ≤ 10 mm.^{22,23} In this study, the average diameter of the inhibition zone of the 100 IU nystatin disk was 19.63 mm. Therefore, the *Candida albicans* specimen used in this study can be considered sensitive to nystatin, so the positive control in this study can be reliable. In this study, all concentrations had a higher inhibition diameter than nystatin 100 IU.