

# EFEK ANTIFUNGI VIRGIN COCONUT OIL TERHADAP CANDIDA ALBICANS

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Kandidiasis Vulvovaginalis (KVV) sangat umum terjadi di negara tropis dan subtropis. Sekitar 85-90% jamur yang terdapat di vagina adalah strain Candida albicans. Pengobatan KVV dapat menggunakan ketokonazol, itrakonazol dan flukonazol. Obat tersebut mempunyai efek samping dan mahal, sehingga masyarakat mulai tertarik untuk memanfaatkan bahan alami sebagai obat, salah satunya VCO. VCO diduga dapat memberikan efek antifungi karena memiliki kandungan medium chain fatty acid (MCFA) berupa asam laurat, asam kaprilat, asam kaprat dan asam miristat, yang bekerja dengan cara merusak membran sel. Penelitian ini ingin membuktikan efek antifungi VCO terhadap pertumbuhan Candida albicans dengan menggunakan true experiments Post test Only Control Group Design. Metode yang dipakai adalah dilusi tabung dengan 6 konsentrasi VCO :100%, 50%, 25%, 12.5%, 6.25%, 3.125% dan 2 kontrol (kontrol bahan dan kontrol kuman) serta difusi cakram. Analisa data menggunakan one way ANOVA. Hasil penelitian Kadar Hambat Minimum (KHM) tidak dapat ditentukan karena konsentrasi VCO pada masing-masing tabung berwarna keruh dan tidak terdapat perbedaan yang nyata. Sedangkan Kadar Bunuh Minimum (KBM) pada konsentrasi 25%. Diameter zona inhibisi pada konsentrasi VCO 100% (14 mm), 50% (11 mm), 25% (10 mm) dan 12,5% (8 mm). Hasil uji one way ANOVA menunjukkan adanya perbedaan yang sangat bermakna antar perlakuan ( $p = 0.000$ ). Semakin tinggi konsentrasi VCO, semakin besar kemampuan menghambat dan membunuh Candida albicans. Pemberian konsentrasi VCO berpengaruh terhadap penurunan jumlah koloni Candida albicans per ml (10<sup>6</sup>). VCO mempunyai efek antifungi terhadap pertumbuhan Candida albicans.

Vulvovaginal Candidiasis (VVC) remains generally prominent in the tropic and sub tropic countries. Indeed, 85 to 90 % of VVC causes come from Candida albicans strain. The medications toward VVC have included Ketoconazole, Itraconazole, and Fluconazole. These drugs, however, have unfavorably side effect and high cost, forcing people to search for the utilization of natural substances as the alternative, among other VCO (Virgin Coconut Oil). People expect VCO to give anti-fungi effect due to its medium chain fatty acid (MCFA) content, involving lauric acid, caprylic acid, capric acid and myristic acid. It works by destructing cell membrane. Research attempts to confirm the VCO's anti-fungi effect on the growth of Candida albicans using true experiments Post Test Only Control Group Design. Methods consider diluting tube with six VCO concentrations, i.e. 100 %, 50 %, 25 %, 12.5 %, 6.25%, 3.125%, and 2 controls (material and germ controls) with disc diffusion. Data analysis employs one way ANOVA. Results of research on Minimal Inhibitory Concentration (MIC) cannot be ensured because of turbid color of VCO concentrations at each tube. Minimal Fungicidal Concentration

(MFC) seems prominent at concentration 25 %. Inhibitory zone diameter appears found at concentration 100 % (14 mm), 50% (11 mm), 25 % (10 mm), and 12.5 % (8 mm). Results of one way ANOVA test indicate meaningful difference between treatments ( $p = 0.000$ ). The higher concentration of VCO means the greater capability to prevent and to destroy *Candida albicans*. The provision of VCO concentrations stimulates the reduction of the number of *Candida albicans* colony per ml (106). VCO has antifungi effect against the growth of *Candida albicans*.