

INTISARI

Resin akrilik polimerisasi panas merupakan bahan basis gigi tiruan lepasan yang paling banyak digunakan karena memiliki nilai estetika tinggi. Resin akrilik memiliki kekurangan seperti, porositas dan bersifat hidrofilik, sehingga mudah terjadi perlekatan mikroflora rongga mulut, seperti *Candida albicans*. *Denture cleanser effervescent* memiliki kemampuan pembersih berupa gelembung oksigen aktif, antibakteri dan antijamur. Penelitian ini bertujuan untuk mengkaji pengaruh lama perendaman larutan *denture cleanser effervescent* terhadap perlekatan *Candida albicans* pada plat basis gigi tiruan resin akrilik polimerisasi panas.

Penelitian ini menggunakan 24 sampel resin akrilik polimerisasi panas diameter 10 mm dan ketebalan 2 mm. Seluruh sampel direndam dalam *microplate 6-well* berisi suspensi *Candida albicans* diinkubasi pada suhu 37°C selama 24 jam, sampel dibagi empat kelompok yaitu kelompok I, II, III direndam dalam larutan *denture cleanser effervescent* 1% (30 menit, 1 jam, 2 jam) dan kelompok IV direndam dalam akuades steril, kemudian dilakukan vibrasi, pengenceran seri dan penanaman pada media agar. Pertumbuhan koloni *Candida albicans* pada media agar dihitung menggunakan *colony counter*. Data yang diperoleh dianalisis menggunakan uji ANAVA satu jalur dan uji LSD.

Hasil uji ANAVA satu jalur menunjukkan perbedaan yang bermakna ($p < 0,05$) terhadap perendaman dalam akuades steril dan larutan *denture cleanser effervescent* (30 menit, 1 jam, 2 jam). Uji LSD menunjukkan perbedaan bermakna ($p < 0,05$) pada seluruh kelompok. Kesimpulan penelitian ini adalah lama perendaman larutan *denture cleanser effervescent* berpengaruh menurunkan perlekatan *Candida albicans* pada plat basis gigi tiruan resin akrilik polimerisasi panas dengan daya hambat jamur tertinggi pada perendaman 2 jam dan bersifat fungistatik.

Kata kunci : larutan *denture cleanser effervescent*, perlekatan *Candida albicans*, resin akrilik polimerisasi panas.

ABSTRACT

Heat cured acrylic resin is used as denture base material in prosthodontics due to its good aesthetic property. However, porosity and hydrophilic characteristic have made heat cured acrylic resin susceptible to the attachment of normal oral microflora, such as *Candida albicans*. Effervescent denture cleanser is used for its cleansing ability due to its active oxide from effervescent reaction, antimicrobial and antifungal properties. This study aimed to examine the effervescent denture cleanser immersion effect toward the attachment of *Candida albicans* on heat cured acrylic resin.

Ten mm in diameter and 2 mm in thickness of twenty four samples of heat cured acrylic resin were used. Samples were immersed in 6-well microplate of *Candida albicans* suspense and incubated in 37°C for 24 hours. Samples were divided into four groups. Group I, II, III were immersed in 1% effervescent denture cleanser for 30 minutes, 1 hour and 2 hour duration. Group IV was immersed in distilled water. All groups were vibrated, followed by serial dilution and inoculation of *Candida albicans* in agar media. *Candida albicans* colony was measured by using colony counter. The obtained data were analyzed with one way ANOVA test and LSD test.

One way ANOVA test result showed significant difference of distilled water and effervescent denture cleanser for 30 minutes, 1 hour, and 2 hour immersion ($p < 0.05$). LSD test showed, significant difference ($p < 0.05$) between all group. It can be concluded that immersion period of effervescent denture cleanser decreased *Candida albicans* attachment on heat cured acrylic resin. The period of 2 hour immersion is fungistatic and showed the highest inhibition activity against *Candida albicans*.

Keywords : effervescent denture cleanser solution, *Candida albicans* attachment, heat cured acrylic resin.