

INTISARI

Latar belakang: Resin akrilik (*polymethyl methacrylate*) merupakan salah satu bahan basis gigi tiruan yang sering digunakan di kedokteran gigi. Pengguna gigi tiruan sering mengalami *denture stomatitis*. Pencegahan *denture stomatitis* dapat dilakukan dengan membersihkan gigi tiruan. Pembersihan gigi tiruan dapat dilakukan secara mekanik, kimia, atau kombinasi keduanya. Natrium hipoklorit adalah larutan kimia yang biasanya digunakan untuk membersihkan gigi tiruan. Hasil uji fitokimia ekstrak buah salak pondoh (*Salacca zalacca*) mengandung senyawa aktif flavonoid, tanin, saponin dan alkaloid yang dapat menghambat pertumbuhan mikroorganisme.

Tujuan penelitian: Tujuan penelitian ini adalah untuk mengetahui perbedaan efektivitas ekstrak kulit salak pondoh (*Salacca zalacca*) dan Natrium hipoklorit 0,5% sebagai pembersih gigi tiruan terhadap jumlah koloni *Candida albicans*.

Metode penelitian: Metode yang digunakan pada penelitian ini adalah eksperimental laboratoris. Dua puluh tujuh sampel cakram resin akrilik diameter 10 mm dan tebal 2 mm direndam dalam saliva buatan selama 1 jam kemudian direndam dalam suspensi *Candida albicans* selama 24 jam. Sampel dibagi dalam 3 kelompok perlakuan lalu direndam dengan aquades, ekstrak kulit salak pondoh (*Salacca zalacca*) dan Natrium hipoklorit 0,5% selama 8 jam. Sampel diambil dan dilakukan pengenceran seri. Jumlah koloni *Candida albicans* dihitung pada media Sabouraud setelah diinkubasi selama 48 jam. Data yang diperoleh dianalisis dengan *one-way Anova* dan dilanjutkan dengan uji *Post hoc*.

Hasil penelitian: Uji *One Way Anova* didapatkan nilai signifikansi 0,000 ($p < 0,05$). Hasil penelitian menunjukkan terdapat perbedaan bermakna dalam menghambat pertumbuhan jamur *Candida albicans*.

Kesimpulan: Hasil penelitian menunjukkan adanya pengaruh ekstrak kulit salak pondoh (*Salacca zalacca*) dalam menghambat pertumbuhan *Candida albicans* tetapi Natrium hipoklorit 0,5% memiliki efektivitas yang lebih baik dibandingkan dengan ekstrak kulit salak pondoh (*Salacca zalacca*).

Kata kunci: Resin akrilik, *Candida albicans*, Natrium hipoklorit 0,5%, Salak pondoh (*Salacca zalacca*)

ABSTRACT

Background: Acrylic resin (polymethyl methacrylate) was one of the base of denture that was frequently used in dentistry. Individuals who wear denture often experience denture stomatitis. The preventive action of denture stomatitis can be done by cleaning the denture. Denture cleaning can be done mechanically, chemically, or a combination of both methods. Sodium hypochlorite is a chemical solution that is relatively recommended for cleaning dentures. The phytochemical test showed *Salacca zalacca* extracts contained various active compounds such as flavonoids, tannins, saponins and alkaloids able to inhibit the growth of microorganism.

Aim: The purpose of this study was to determine differences in the effectiveness of *Salacca zalacca* extract and sodium hypochlorite 0,5% as denture cleanser of the number of colonies of *Candida albicans*.

Method: The method was laboratory experiment. Twenty seven acrylic resin samples were made with 10mm diameter and 2mm thick soaked in sterilized saliva for 1 hour and put into *Candida albicans* suspension for 24 hours. The samples were divided into 3 treatments. Afterward, they soaked with aquades, *Salacca zalacca* extracts, and Sodium hypochlorite 0,5% for 8 hours. Serial dilutions are needed after samples were taken. The colony of *Candida albicans* was counted after planted into Sabouraud agar and 48 hours of incubation. The data is processed using one way anova and post hoc.

Result: There is a significant result regarding the test. It obtained 0.000 ($P > 0.05$) percentage based on One Way Anova test upon the *Candida albicans* growth. It means that there is a significant difference toward the growth of *Candida albicans*.

Conclusion: The results proves the effect of *Salacca zalacca* extracts in inhibiting the growth of *Candida albicans* but sodium hypochlorite 0.5% have a better effectiveness compared with *Salacca zalacca* extracts.

Keyword: Acrylic resin, *Candida albicans*, Sodium hypochlorite 0,5%, *Salacca zalacca*