

INTISARI

Penyebab ketidakpuasan terhadap penampilan gigi sering disebabkan oleh pewarnaan pada gigi karena pola diet masyarakat. Makanan atau minuman yang berwarna dapat meninggalkan *extrinsic stain*. *Stain* dapat melekat pada gigi asli, gigi artifisial, dan plat resin akrilik. *Extrinsic stain* dapat dihilangkan dengan penyikatan. Nanas mengandung asam sitrat, asam malat, dan enzim bromelin yang dapat membantu menghilangkan *stain*. Penelitian ini bertujuan untuk mengetahui pengaruh pasta ekstrak nanas (*Ananas comosus* L. Merr) terhadap penghilangan *extrinsic stain* pada permukaan gigi, gigi artifisial, dan plat resin akrilik.

Sebanyak 15 gigi, 15 gigi artifisial, dan 15 plat resin akrilik direndam dalam larutan teh hitam selama 6 hari. Larutan teh terbuat dari campuran 2 g teh hitam dengan 100 mL air mendidih. Subjek penelitian dibagi menjadi 3 kelompok perlakuan, masing-masing kelompok terdiri dari 5 buah subjek yang disikat selama 70 detik dengan kecepatan 5 gerakan per detik menggunakan 3 jenis pasta, yaitu pasta dasar, pasta ekstrak nanas, dan pasta penghilang *stain*. Subjek penelitian difoto setelah pembentukan *extrinsic stain*, dan setelah penyikatan, kemudian dinilai perubahan warnanya dengan sistem L^*a^*b menggunakan *Adobe Photoshop CC 2014*.

Hasil uji ANAVA dua jalur menunjukkan bahwa terdapat pengaruh signifikan ($p < 0,05$) antara perubahan warna subjek yang disikat menggunakan pasta ekstrak nanas dan pasta penghilang *stain* dengan pasta dasar. Hasil uji LSD menunjukkan bahwa tidak terdapat pengaruh signifikan ($p > 0,05$) antara pasta ekstrak nanas dan pasta penghilang *stain*. Kesimpulan dari penelitian ini adalah pasta ekstrak nanas (*Ananas comosus* L. Merr) berpengaruh terhadap penghilangan *extrinsic stain* pada permukaan gigi, gigi, artifisial, plat resin akrilik.

Kata kunci: gigi, gigi artifisial, plat resin akrilik, *extrinsic stain*, *Ananas comosus* L. Merr

ABSTRACT

Dissatisfaction of dental appearance is often caused by staining on the teeth surface due to the dietary patterns of people. Colored food or drink can leave the extrinsic stain. Stain can be attached to the teeth surface, artificial teeth and acrylic resin plate. Extrinsic stain can be removed by brushing. Pineapple contains of citric acid, malic acid, and bromelin that can help remove extrinsic stain. The aim of this experiment was to evaluate the effect of pineapple (*Ananas comosus* L. Merr) extract paste for extrinsic stain removal on the teeth surface, artificial teeth, and acrylic resin plate.

Fifteen teeth, 15 artificial tooth, and 15 acrylic resin plate is immersed in black tea solution for 6 days. The tea solution made by mixture 2 g of black tea with 100 mL of boiling water. The subjects were divided into three treatment groups, each group consisting of 5 pieces of subjects which brushed for 70 seconds with 5 movements per second using three kinds of paste, which are the basic paste, the pineapple extract paste, and the stain remover paste. The subjects were photographed after the extrinsic stain formation and after brushing, then the color changes was rated with the L * a * b system using Adobe Photoshop CC 2014.

Two way ANOVA results indicate that there is a significant effect ($p < 0.05$) between the color changes of the subject are brushed using the pineapple extracts paste and the stain remover paste with the basic paste. LSD test results showed that there was no significant effect ($p > 0.05$) between pineapple extract paste and stain remover paste. The conclusion of this study is pineapple extract paste is effected on the extrinsic stain removal on the teeth surface, artificial teeth, and acrylic resin plate.

Keywords: teeth, artificial teeth, acrylic resin plate, *extrinsic stain*, *Ananas comosus* L. Merr