INTISARI

Erosi gigi menyebabkan kekasaran permukaan email gigi. Minuman teh dalam kemasan memiliki nilai pH lebih rendah hingga mampu meningkatkan kekasaran permukaan email gigi. Penambahan susu ke dalam teh diharapkan mampu mengurangi efek erosi pada gigi. Penelitian ini bertujuan untuk mengetahui pengaruh penambahan susu pada minuman kemasan teh hitam terhadap kekasaran permukaan email gigi *in vitro*.

Kekasaran permukaan gigi diukur dari 24 gigi premolar rahang atas menggunakan *surface roughness measuring instrument*. Subjek dibagi menjadi 6 kelompok dengan masing-masing 4 spesimen. Kontrol positif direndam menggunakan susu. Kontrol negatif direndam menggunakan teh. Kelompok *sham* direndam menggunakan aquades. Kelompok Perlakuan (A), (B) dan C() direndam campuran teh kemasan dan susu dengan perbandingan berturut-turut 90%:10%, 75%:25% dan 50%:50%.

Perendaman pada semua kelompok dilakukan selama 30 jam dengan durasi 6 jam/hari selama 5 hari (*erosive cycling period*). Setelah perlakuan enam jam, semua kelompok direndam dalam saliva buatan hingga hari berikutnya. Dilakukan pengukuran setelah perlakuan (K2). Analisis data dilakukan menggunakan uji statistik pada $p < 0,05$.

Hasil uji analisis variansi satu jalur (ANAVA) didapatkan $p = 0,413$ yang menunjukkan tidak adanya perbedaan yang siginifikan, walaupun terdapat kecenderungan penurunan kekasaran permukaan gigi seiring dengan meningkatnya kosentrasi susu.

Kata kunci : Teh kemasan, Susu, Teh susu, Kekasaran permukaan email gigi.

ABSTRACT

Dental erosion causes tooth enamel surface roughness. Packaged drink tea has low pH value which is believed to increase the roughness of enamel tooth surface. The addition of milk to the tea is expected to reduce the effect of tooth erosion. The aim of this study was to determine the effect milk addition packaged drink black tea on the tooth enamel surface roughness *in vitro*.

Tooth surface roughness was measured on 24 maxillary premolars using surface roughness measuring instrument. The subjects were divided into 6 treatment groups, 4 specimens each. Positive control was immersed in milk. Negative control was immersed in tea. Sham group was immersed in aquadest. Treatment groups (A), (B), (C) were immersed in a mixture of packaged tea and milk with the ratio of 90%:10%, 75%:25%, and 50%:50%, consecutively. The immersion of all groups was carried out for 30 hours with a duration of 6 hours/day for 5 days (erosive cycling period). After six hours, all groups were immersed in the artificial saliva (night-time) until the next day. Measurements were taken after treatment (K2). Furthermore, data analysis was carried out using statistical tests at $p < 0.05$.

The results of the one-way variation test (ANAVA) showed $p=0,413$ which showed no significant difference, although there was a decrease in the level of tooth surface roughness as the concentration of milk increase.

Key words: Packaged tea (*RTD*), Milk, Milk Tea, Enamel Tooth Surface Roughness