

INTISARI

Diskolorasi ekstrinsik merupakan perubahan warna gigi yang berkaitan dengan kebersihan rongga mulut, absorpsi warna akibat pola makan, serta gaya hidup. Salah satu penyebab diskolorasi ekstrinsik ialah teh hitam. Kulit kentang (*Solanum tuberosum* L.) merupakan salah satu bahan alami yang mengandung asam oksalat, yaitu senyawa organik yang potensial dalam memutihkan warna gigi. Tujuan penelitian ini untuk mengetahui pengaruh perendaman rebusan kulit kentang (*Solanum tuberosum* L.) sebagai alternatif *home bleaching* pada diskolorasi gigi permanen.

Sebanyak 20 gigi premolar rahang atas dan rahang bawah direndam dalam larutan teh hitam selama 7 hari dan dilakukan pengukuran warna awal gigi menggunakan *Spectrophotometer UV-VIS 2401*. Kemudian, gigi dibagi ke dalam 5 kelompok dan dilakukan perendaman dalam akuades sebagai kontrol negatif, rebusan kulit kentang 50%, 75%, dan 100% sebagai kelompok perlakuan, serta karbamid peroksida 10% sebagai kontrol positif selama 7 hari. Selanjutnya, dilakukan pengukuran warna akhir gigi menggunakan *Spectrophotometer UV-VIS 2401*. Analisis data menggunakan uji *One-way ANOVA*.

Berdasarkan hasil uji *One-way ANOVA*, diperoleh nilai signifikansi sebesar $<0,001$ ($p<0,05$). Hal ini menunjukkan bahwa terdapat perbedaan yang signifikan terhadap perubahan warna gigi setelah perendaman dalam akuades, rebusan kulit kentang 50%, 75%, dan 100%, serta karbamid peroksida 10%. Kesimpulan penelitian ini adalah perendaman rebusan kulit kentang (*Solanum tuberosum* L.) sebagai alternatif *home bleaching* berpengaruh pada diskolorasi gigi permanen.

Kata kunci: Teh hitam, diskolorasi ekstrinsik, *home bleaching*, kulit kentang, asam oksalat

ABSTRACT

Extrinsic discoloration is defined as a change in tooth color associated with oral hygiene, pigment absorption due to dietary patterns, and lifestyle factors. One of the causes of extrinsic discoloration is black tea. Potato peels (*Solanum tuberosum* L.) is considered as a natural material that contains oxalic acid, an organic compound with potential tooth-whitening properties. The aim of this study was to determine the effect of soaking in boiled potato peels solution (*Solanum tuberosum* L.) as an alternative home bleaching agent on the discoloration of permanent teeth.

Twenty maxillary and mandibular premolars were immersed in a black tea solution for seven days, and the initial tooth color was measured using a UV-VIS Spectrophotometer 2401. Then, the teeth were divided into five groups and immersed in distilled water (negative control), boiled potato peels at concentrations of 50%, 75%, and 100% (treatment groups), and 10% carbamide peroxide (positive control) for seven days. After that, the final tooth color was measured by UV-VIS Spectrophotometer 2401. The data were analyzed by One-way ANOVA.

Based on the results of the One-way ANOVA test, a significance value of <0.001 ($p<0.05$) was obtained. This indicates that a significant difference was observed in tooth color changes after immersion in distilled water, boiled potato peels at concentration of 50%, 75%, 100%, and 10% carbamide peroxide. The conclusion of this study is that immersion in boiled potato peels (*Solanum tuberosum* L.) as a home bleaching alternative was found to affect the discoloration of permanent teeth.

Keywords: Black tea, extrinsic discoloration, home bleaching, potato peels, oxalic acid