

# Pengaruh Perendaman Resin Komposit Single-Shade dalam Larutan Teh Oolong dan Teh Hitam terhadap Perubahan Warna = The Effect of Oolong Tea and Black Tea Immersion on Color Change of Single-Shade Composite Resins

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## Abstrak

**Latar Belakang**: Resin komposit *single-shade* merupakan resin komposit yang dapat menghasilkan warna menyerupai berbagai shade gigi tanpa tambahan pigmen. Resin komposit *single-shade* tetap memiliki potensi perubahan warna saat terpapar zat pewarna. Teh hitam dan oolong memiliki kadar tanin yang dapat mempengaruhi stabilitas warna resin komposit. Maka, dilakukan pengujian perubahan warna resin komposit *single-shade* setelah perendaman dalam larutan teh hitam dan oolong. **Tujuan**: Mengetahui perbedaan perubahan warna antara resin komposit *single-shade* yang direndam dalam larutan teh hitam dan oolong. **Metode**: Spesimen resin komposit *single-shade* dan konvensional *nanohybrid* (n = 42) dibagi ke dalam 6 kelompok, kemudian direndam dalam larutan teh hitam dan oolong selama 24 jam/hari dalam waktu 7 hari. Pengukuran perubahan warna dilakukan dengan *colorimeter*. **Hasil**: Perendaman dalam larutan teh hitam menghasilkan perubahan warna yang tidak sesuai pada resin komposit *single-shade*. Terdapat perbedaan perubahan warna signifikan antara resin komposit konvensional dalam kedua larutan teh, serta antara resin komposit *single-shade* dalam kedua larutan teh ( $p < 0.05$ ). **Kesimpulan**: Perendaman resin komposit dalam teh hitam atau oolong menyebabkan perubahan warna resin komposit konvensional dan *single-shade*. Teh hitam menyebabkan perubahan warna lebih besar dibandingkan teh oolong pada kedua jenis resin komposit.

.....Single-shade composite resin is a composite resin that produces various teeth shades without additional pigments. Single-shade composite resin still has its color change potential when exposed to colorants. Black and oolong tea possess tannin contents that influence composite resin's color stability. Therefore, single-shade resin composite's color change was evaluated after its immersion in black and oolong tea solutions. **Objective**: To determine color change difference of single-shade composite resin after its immersion in black and oolong tea solutions. **Methods**: Single-shade and conventional nanohybrid composite resin specimens (n = 42) were divided into 6 groups, then immersed in black and oolong tea solutions for 24 hours/day for 7 days. Color change measurements were taken with a colorimeter. **Results**: Immersion in black tea resulted in unacceptable color change in single-shade composite resin. Significant difference in color change was found between conventional composite resin immersed in black and oolong tea, and between single-shade composite resin immersed in black and oolong tea ( $p < 0.05$ ). **Conclusions**: Black and oolong tea immersion causes color change in conventional and single-shade composite resins. Black tea causes larger color change compared to oolong tea in both composite resins.