

ABSTRACT

Background: Burn scar is the most common incidents in society and it frequently is second-degree burn scar. A research by Health Department Indonesia (2008) found out that the prevalence of burn incident in Indonesia is 2,2%. Green tea contains polyphenol that can defense to fight bacterial infection and UV radiation and epigallocatechin-3-gallate (EGCG) will accelerate new cells differentiations. Silicone gel contains additive substances such as Vitamin C esters which function to fade scars and protect it from UV radiation, so it's need to do the research to compare the topical green tea and silicone gel in order to diminish the size of burn scars.

Method: The research design was an analytical experimental with RCT (Randomized Controlled Trial) design in which pre-test and post-test using autoCAD application. There were 10 research subjects who have first or second degree burn scar that were divided randomly into 5 people in each group for topical green tea treatment and topical silicone gel treatment for two months.

Results: The result of statistical test showed that there was a significant difference ($p < 0,05$) between before and after treatment in each group. Yet, the statistical result in comparing the effectiveness of topical green tea and silicone gel was insignificant ($p > 0,05$). This meant that the effectiveness of topical green tea was similar to silicone gel in improving burn scar.

Conclusion: The comparison topical application of green tea and silicone gel was statistical insignificant in improving burn scar.

Keywords: Burn scar, green tea, silicone gel, EGCG, randomized controlled trial

INTISARI

Latar Belakang : Bekas luka bakar merupakan insiden yang sering terjadi di masyarakat dan terbanyak yaitu bekas luka bakar derajat II. Riset Departemen Kesehatan RI (2008) menyatakan prevalensi kejadian luka bakar di Indonesia sebesar 2,2%. Tanaman teh hijau mengandung *polyphenol* yang mampu melawan infeksi bakteri dan radiasi sinar UV dan *epigallocatechin-3-gallate (EGCG)* yang mempercepat proses diferensiasi sel-sel baru. *Silicone gel* mengandung zat aditif seperti vitamin C ester yang berfungsi memudahkan bekas luka dan melindunginya dari sinar UV, sehingga perlu dilakukan penelitian untuk membandingkan *Green tea topical* dan *silicone gel* dalam mengecilkan bekas luka bakar.

Metode : Desain penelitian ini yaitu eksperimental analitik dengan rancangan RCT (*Randomized Controlled Trial*) dimana akan dilakukan pengukuran *pre-test* dan *post-test* dengan aplikasi *autoCAD*. Subjek penelitian berjumlah 10 yang memiliki bekas luka bakar derajat 1 atau 2 akan dibagi secara acak menjadi 5 orang pada masing-masing kelompok baik kelompok perlakuan *green tea topical* atau *silicone gel* dimana perlakuan akan diberikan selama 2 bulan.

Hasil : Hasil uji statistik menunjukkan perbedaan bermakna ($p < 0,05$) antara sebelum dan sesudah perlakuan baik kelompok *Green tea topical* maupun kelompok *silicone gel*. Namun, hasil uji statistik efektivitas antara *Green tea topical* dan *silicone gel* menunjukkan hasil tidak bermakna ($p > 0,05$) yang berarti efektivitas *Green tea topical* setara dengan efektivitas *silicone gel* dalam mengecilkan bekas luka bakar.

Kesimpulan : Perbandingan antara pemberian *Green tea topical* dan *Silicone gel* tidak memiliki perbedaan efektivitas bermakna secara statistik dalam mengecilkan bekas luka bakar.

Kata Kunci : *Burn scar, green tea, silicone gel, EGCG, randomized controlled trial*