

## Pengaruh Gel Kolagen dan Glycerin pada Penyembuhan Luka Donor Tandur Kulit = Collagen and Glycerin based Gel Effects on Wound Healing Split Thickness Skin Graft Donor Sites

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### Abstrak

Latar Belakang: Dibutuhkan waktu 14 hari donor kulit STSG sembuh. Kolagen berperan penting untuk menginduksi penyembuhan luka dan proses epitelisasi lebih cepat. Sementara gliserin menjaga kulit tetap lembab dan mendorong migrasi sel epitel. Penelitian ini dilakukan untuk mengetahui fungsi gel kolagen dan gliserin dalam mempercepat penyembuhan luka pada daerah donor STSG. Bahan dan Metode: Uji coba klinis non-acak dilakukan pada 18 pasien dewasa untuk membandingkan tingkat epitelisasi pada donor STSG antara kombinasi gel kolagen dan gliserin dibandingkan tulle yang dikombinasikan dengan kasa lembab. Luka dinilai pada hari ke 7, 10, dan 14 pascaoperasi. Persentase epitelisasi dievaluasi dan difoto. Setiap foto dianalisis dengan menggunakan program analisis warna Adobe Photoshop. Data dianalisis dengan menggunakan SPSS 20.0 dan diuji dengan independent t-test. Hasil: Delapan belas pasien yang membutuhkan pencangkokan kulit dimasukkan dalam penelitian ini. Terdapat 13 pria dan 5 wanita dengan usia rata-rata 33,34 tahun berkisar 15-50 tahun . Area donor rata-rata adalah 140,89 cm<sup>2</sup> berkisar 100-240 cm<sup>2</sup> . Persentase tingkat epitelisasi lebih besar dengan menggunakan kombinasi gel kolagen dan gliserin pada hari ke-7 pasca operasi 88,05 , 95 CI 85,75-90,63 vs 77,18 , 95 CI 73,39-81,02 ; p

.....Background It usually takes 14 days for the split thickness skin donor site to heal. Collagen plays an important role to induce faster wound healing and epithelialization. Meanwhile, glycerin keeps skin moisturized and promotes epithelial cells migration. This study was conducted to identify the role of combined collagen and glycerin based gel in promoting faster wound healing on split thickness skin graft donor sites. Materials and Methods A non randomized clinical trial was performed on 18 adult patients to compare the dressing for split thickness skin graft donor site epithelialization rate between combination of collagen and glycerin based gel versus tulle grass combined with moist gauze. The wound was assessed on postoperative day 7, 10, and 14. The epithelialization percentage was evaluated and photographed. Each photo was analyzed using Adobe Photoshop color match program. Data was analyzed using SPSS 20.0 and tested with independent t test. Result Eighteen patients requiring skin grafting were included in this study. There were 13 men and 5 women with mean age 33.34 year old ranged 15 50 year old . The average donor area was 140.89 cm<sup>2</sup> ranged 100 240 cm<sup>2</sup> . Epithelialization rate was greater using combination of collagen and glycerin based gel on postoperative day 7 88.05 , 95 CI 85.75 90.63 vs 77.18 , 95 CI 73.39 81.02 p 0.05 and day 10 96.92 , 95 CI 96.02 97.82 vs 89.22 , 95 CI 87.6 90.85 p 0.05 . Meanwhile, there is no epithelialization rate difference on postoperative day 14 between both dressing types 100 vs 99.72 0.55 , p 0.05 Conclusion Although showing better epithelialization rate at day 7 and 10, combination of collagen and glycerin based gel covered gauze showed no difference in the healing of split thickness skin graft donor sites in comparison with tulle grass combined with moist gauze at day 14. Keywords Donor site, STSG, collagen and glycerin based gel, epithelialization.