

Pengaruh pemberian secara topikal kombinasi rebusan daun sirih merah (*Piper cf. fragile*, Benth.) dan rebusan herba pegagan centella asiatica (L.) urban) terhadap penyembuhan luka tikus putih jantan yang dibuat diabetes = The effect of topically administration of combination of sirih merah (*Piper cf. fragile*, Benth.) leaves and pegagan (*Centella asiatica* (L.) Urban) herbs extract as wound healing on diabetic albino rats

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Abstrak

Sirih merah (*Piper cf. fragile*, Benth.) mempunyai aktivitas antibakteri terhadap bakteri Gram positif dan negatif, aktifitas antiinflamasi yang lebih baik daripada sirih hijau (*Piper betle*, Linn) dan telah diteliti aktivitasnya terhadap luka Diabetes Melitus (DM). Pegagan (*Centella asiatica* (L.) Urban) telah diteliti mempunyai aktivitas penyembuhan luka yang baik pada luka normal maupun luka DM dengan menstimulasi sintesis kolagen, meningkatkan sekresi kolagen, merangsang proliferasi fibroblast, aktivitas antibakteri dan antioksidan. Kombinasi antara sirih merah dan pegagan berpotensi menimbulkan efek sinergis berdasarkan bioaktifitasnya.

Penelitian ini dilakukan untuk mengetahui efek kombinasi dari rebusan daun sirih merah dan rebusan herba pegagan yang diberikan secara topikal terhadap penyembuhan luka tikus diabetes yang diinduksi aloksan. Hewan coba dibagi dalam 7 kelompok yaitu kelompok 1 merupakan kontrol normal, kelompok 2 kontrol induksi, kelompok 3 kontrol positif, kelompok 4 diberi dosis tunggal sirih merah, kelompok 5, 6 dan 7 diberi kombinasi rebusan daun sirih merah dan rebusan herba pegagan. Pengamatan dilakukan terhadap persentase penyembuhan luka selama 7 hari.

Hasil penelitian menunjukkan bahwa kombinasi rebusan sirih merah 40% dan rebusan pegagan 20% mempunyai efek penyembuhan luka terbaik.

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Sirih merah (*Piper cf. fragile*, Benth.) is known to have antibacterial activity against positive and negative Gram bacteria, anti inflammatory effect greater than sirih hijau (*Piper betle*, Linn) and had been proven to have healing activity towards diabetes wound. Pegagan (*Centella asiatica* (L.) Urban) has been examined to have a good wound healing in normal and diabetes wound by stimulating collagen synthesis and fibroblast proliferation, increasing collagen secretion, and also having antibacterial and antioxidant activities. The combination of sirih merah and pegagan is expected to have potential synergic effect based on their bioactivity.

This study examined the wound healing effect of the combination of sirih merah leaves and pegagan herbs extract on diabetic rats that induced by alloxan. The experimental animals were divided into seven groups: group one as the normal control, group two as the induced control, group three as the positive control, group four which was given a single dose of sirih merah, group five, six, and seven which were given the combination of sirih merah leaves and pegagan herbs extract. The percentage of wound healing has been

observed daily for seven days.

The results showed that the combination of sirih merah 40% and pegagan 20% have the best wound healing effect.