ABSTRAK

Luka adalah kerusakan dan atau hilangnya sebagian jaringan tubuh yang memicu terjadinya stres oksidatif. Tanaman mata ikan (*Lemna minor* L.) memiliki potensi sebagai penyembuh luka karena mengandung senyawa fenolik antara lain yaitu flavonoid, yang memiliki aktivitas antioksidan dan antimikroba. Penelitian ini bertujuan untuk mengetahui konsentrasi perasan tanaman mata ikan diantara 2%, 4%, dan 8% dalam sediaan gel untuk mencapai persentase penyembuhan tertinggi pada luka *biopsy* tikus putih jantan galur Wistar. Penelitian ini berjenis kuantitatif eksperimental murni dengan rancangan penelitian acak lengkap pola searah secara *in vivo*. Subjek uji tikus putih jantan dibuat empat luka *biopsy* menggunakan *biopsy punch* di bagian punggung yang bulunya telah dipangkas. Setiap luka diberi perlakuan berbeda, dengan 3 replikasi yang dilakukan 2 kali 1 hari selama 14 hari. Perlakuan 1 berupa kontrol positif, perlakuan 2 berupa kontrol negatif, perlakuan 3 berupa sediaan gel perasan tanaman mata ikan konsentrasi 2%, perlakuan 4 berupa sediaan gel perasan tanaman mata ikan konsentrasi 4%, dan perlakuan 5 berupa sediaan gel perasan tanaman mata ikan konsentrasi 8%. Pengamatan luka selama 14 hari secara visual dilakukan untuk mengetahui perkembangan proses penyembuhan luka dari setiap fase. Persentase kesembuhan luka dihitung pada hari ke-7. Data hasil uji *Post-Hoc LSD* menunjukkan bahwa gel perasan tanaman mata ikan konsetrasi 2%, 4%, dan 8% menghasilkan tingkat kesembuhan luka *biopsy* yang berbeda tidak bermakna antar kelompok konsentrasi dan kontrol positif.

Kata Kunci: Tanaman mata ikan, Gel penyembuh luka, Luka *biopsy*.

ABSTRACT

Wounds are damage or partial loss of body tissue that triggers oxidative stress. Fish eye plant (*Lemna minor* L.) has potential as a wound healer because it contains phenolic compounds, including flavonoids, which have antioxidant and antimicrobial activities. This study aims to determine the concentration of fish eye plant juice between 2%, 4%, and 8% in gel preparations to achieve the highest percentage of healing in biopsy wounds of male Wistar white rats. This research is a pure experimental quantitative type with a unidirectional complete randomized study design in vivo. Male white rat test subjects were made four biopsy wounds using a biopsy punch on the back, whose fur had been trimmed. Each wound was given a different treatment, with 3 replications carried out 2 times 1 day for 14 days. Treatment 1 was a positive control, treatment 2 was a negative control, treatment 3 was 2% fish eye plant juice gel preparation, treatment 4 was 4% fish eye plant juice gel preparation, and treatment 5 was 8% fish eye plant juice gel preparation. Visual observation of the wound for 14 days was carried out to determine the development of the wound healing process of each phase. The percentage of wound healing was calculated on the 7th day. Post-hoc LSD test data showed that the 2%, 4%, and 8% concentrations of fisheye plant juice gel produced biopsy wound healing rates that were not significantly different between concentration groups and positive controls.

Keywords: Duckweed, Wound healing gel, Biopsy wound.