(*Chromolaena odorata*) INFUSION AND 10% POVIDONE IODINE ON WOUND HEALING INCISION OF MICE (*Mus musculus*) THAT INFECTED BY *Staphylococcus aureus*

Arif Caesar Budi S.

ABSTRACT

Skin was the part of the body most often injured and susceptible to infection. Skin infections were most commonly caused by *Staphylococcus aureus*. *Povidone-iodine* was one of the most commonly used synthetic drugs. In traditional, injuries can be cured by drip the tekelan leaf (*Chromolaena odorata*) infusion. This study aims to compare the treatment effects of tekelan leaf (*Chromolaena odorata*) infusion and *povidone-iodine* in the healing wound process of histopathological skin in mice. Subjects were 25 mice (*Mus musculus*) which incised and infected by *Staphylococcus aureus* in 5 group P0 (without treatment), P1 (*povidone-iodine* 10%), P2 (tekelan infusion 5%), P3 (tekelan infusion 10%) dan P4 (tekelan infusion 20%). Observations were made microscopically on wound conditions based on a total assessment of the four observed parameters specifically epithelization, inflammation rate, connective tissue proliferation, and angiogenesis. The results showed that the total observation value in the P0 and P2 groups was lower than the other groups. While in the group P1 got the highest score. In the *Kruskal-Wallis* test, $p < 0.05$ showed a significant difference between treatment groups. *Mann Whitney* test showed a significant difference between P1 and P0, P2, and P3 but not significantly different with P4. From this result it can be concluded that the tekelan leaf (*Chromolaena odorata*) infusion can be used as an alternative *povidone-iodine* replacement drug with an optimal concentration of 20%.

Key words : *Chromolaena odorata, povidone-iodine, histopathology, skin, healing wound*.