ABSTRACT

THE EFECTIVENESS OF CLOVE OIL (SYZYGIUM AROMATICUM) WITH POVIDONE IODINE 10% TO THE INCISION WOUND HEALING PROCESS IN MICE (*MUS MUSCULUS)*

A true experiment Study

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Introduction: Povidone iodine frequently used for incision wound treatment, beside its effectiveness, this agent has toxigenic effect. Clove oil was one of traditional treatment for wound, because it have ati-bacterial and anti-inflmatory effect. This study was aimed to know the effectiveness between clove oil and povidone iodine 10% in incision wound healing process. **Methods:** This research design used was true experiment study with the incision wound healing as the dependent variable and clove oil and *povidone iodine* 10% as the independent variable. The instruments used in this study was the observation sheets wound healing process. The sample were 18 mice divided randomezely into three groups. The groups were clove oil group, povidone iodine 10% group and normal saline 0,9% at control group. Data were analyzed using *One Way ANOVA* and *Kruskall-Wallis* test with level of significance $p \leq 0{,}05$. **Result and Analysis** showed that were differences between clove oil and povidone iodine 10% in redness (p= -), oedema (p=0,030), wound fluid (p=1,00), granulation (p=0,019) and wound side (p=0,019) at first day, redness (p= -), oedema (p=0,08), wound fluid (p=1,00), granulation (p=0,012) and wound side (p=0,029) at 2^{nd} day, redness (P= -), oedema (p=0,003), wound fluid (p=1,00), granulation (p=0,007) and wound side (p=0,045) at 3^{th} day, redness (p= -), oedema (p=0,040), wound fluid (p=1,00), granulation (p=0,029) and wound side (p=0,038) at 4^{th} day, redness (p= -), oedema (p=0,024), wound fluid (p=1,00), granulation (p=0,012) and wound side (p=0,010) at 5^{th} day, redness (p= -), oedema (p=0,003), wound fluid (p=1,00), granulation (p=0,012) and wound side (p=0,018) at 6^{th} day, redness (p= -), oedema (p=0,021), wound fluid (p=1,00), granulation (p=0,033) and wound side (p=0,015) at 7^{th} day. **Discussion and Conclusion:** It could be concluded that using clove oil was more effective than povidone iodine 10% in wound healing process, for futher research there is need to be conducted a microscopically observation of numerous changes in collagen, neutrohile cell and MN-cell (lymphocyte and monocyte), inflammation and proliferation as well as incision wound healing process.

Keyword: clove oil, povidone iodine 10%, NaCl 0,9% wound care