



EFFECTIVENESS OF HAND SANITIZER ETHANOL PACAR KUKU LEAVES EXTRACT (LAWSONIA INERMIS L) ON STAPHYLOCOCCUS AUREUS BACTERIA

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BACKGROUND :

Pacar Kuku leaves contain much bioactive compounds substances which is efficacious as medicine. One of the efficacy of the pacar Kuku leaves is that it is an antimicrobial substance derived from the content of alkaloids, flavonoids, saponins, and quinons.

OBJECTIVE :

The purpose of this study was to find out the formulation of the hand gel form of ethanol extract of pacar kuku leaves (*Lawsonia inermis* L.) as antibacterial with various concentration of ethanol extract of pacar kuku leaves that can work well against *Staphylococcus aureus* bacteria.

METHODOLOGY :

The extraction method used was a maceration method using 70% ethanol solvent. Hand-cleaning gel of pacar kuku leaves ethanol extract made 4 formulations. Formula 1 contains 0,25, formula2 contains 0,50, formula 3 contains 0,75, and formula 4 contains 1 gram ethanol extract of pacar kuku leaves. The negative control used hand sanitizer gel without ethanol extract of pacar kuku leaves and the positive control useddettol hand sanitizer. The testsused include organoleptic test, pH test, spreading test, sticky test, homogeneity test, viscosity test, gel stability test, and antibacterial activity test. Data Analysis of antibacterial inhibitory and data analysis of hand gel formulations used one-way anova.

RESULT :

The results shows that the best formulation is the formula 2 because it produced a light brown color from organoleptistest that matches the good visual criteria, that is a clear and attractive gel. In addition, it has the adhesive and spreading power that almost the same with positive control and has a resistor of 14 mm and formula 4 as a larger inhibitory of 16,1 mm.

CONCLUSIONS :

The ethanol extract of nail henna leaves can be made as a hand gel preparation a good cleanser from henna leaf powder, so that it produces a gel hand sanitizer with good physical quality and has activity antibacterial against *Staphylococcus aureus* ATCC 25923. The formulation of a hand sanitizer gel that has antibacterial activity the best is in formula IV with a concentration of leaf ethanol extract 100% nail with an inhibitory power of 16.1 and has physical properties the good one.

