

**EFFECTIVENESS OF ANTIBACTERIAL APPLE CIDER VINEGAR OF  
FIELD ISOLATE MULTIDRUG RESISTANT *Staphylococcus aureus*  
FROM WOUND INFECTION IN DOG**

Elisa Herina Dimariwu

**ABSTRACT**

*Staphylococcus aureus* is one of the normal flora that can cause infection in injured skin. Resistance to antibiotics has an impact on the difficulty of therapeutic treatment so that other alternatives are needed. The purpose of this study was to observe the effectiveness of apple vinegar as an antimicrobial against Multidrug Resistant *Staphylococcus aureus* isolated from infection wounds in dogs in Surabaya. The methods in this study were the isolation of bacteria from 30 samples of dog festering wounds on MSA media and identification through macroscopic, microscopic, catalase tests, coagulase tests, hemolysis tests on Blood Agar media, and VP tests. Furthermore, bacteria that have included the *Staphylococcus aureus* criteria were followed by sensitivity tests to the antibiotics Amoxycillin, Ampicillin, Gentamicin, Chloramphenicol, and Ciprofloxacin. Apple vinegar activity test was carried out using disk diffusion method against Multidrug Resistant *Staphylococcus aureus*. The results showed that of the seven *Staphylococcus aureus* isolates, there were two isolates belonging to the Multidrug Resistant *Staphylococcus aureus*. The results of the apple vinegar activity test showed the presence of antimicrobial activity shown by the formation of a clear zone around the paper disk with an average diameter of 24.06 mm at a concentration of 90%. The conclusion shows that apple vinegar has antimicrobial activity against Multidrug Resistant *Staphylococcus aureus* which is isolated from dog festering wounds in Surabaya.

**Keywords** : *Staphylococcus aureus*, antimicrobial, apple vinegar, Surabaya.