DETECTION OF GENE ENCODING TOXIC SHOCK SYNDROM TOXIN-1 IN METHICILLIN RESISTANT *Staphylococcus aureus* FROM NASAL MUCOSA SWAB OF DOG

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ABSTRACT

The main aim of the research was to know gene encoding Toxic Shock Syndrom Toxin-1 (TSST-1) in Methicillin Resistant *Staphylococcus aureus* (MRSA) from nasal mucosa swab of dogs. The samples were collected from three of pet clinics, three of K9 units, one of veterinary hospital, and one of kennel in Surabaya. Among 50 samples, totally 24 confirmed *Staphylococcus aureus* (*S. aureus*) strains were used for antibiotic resistance test used disc diffusion method and screening of MRSA used Oxacillin Resistance Screening Agar Base (ORSAB). Five MRSA isolates were examined for detection of gene encoding TSST-1 (tst) using Polymerase Chain Reaction (PCR) method. This study showed that there were differences in antibiotic resistance patterns among different locations. Fourteen isolates were screened for MRSA by culture on ORSAB. The tst gene encoding TSST-1 was detected in none of the five MRSA isolates. Finally, MRSA carriage was found on nasal mucose swab of dogs.

Keywords: *Staphylococcus aureus, Methicillin Resistant Staphylococcus aureus, Toxic Shock Syndrom Toxin-1*