

Detection of Antibacterial Activity of Karuncheerakam (*Nigella Sativa*) Oil against Gram Positive Cocci Isolated From Veterinary Clinical Specimens

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ABSTRACT. Gram positive cocci are ubiquitous microorganisms important in human and animal infections. The use of antibiotics to treat these infections is limited because of emergence of antibiotic-resistant bacteria that can be transferred to man and should adapt to withdrawal period in order to minimize antibiotic residue. Therefore, many research studies are being carried out to find non-antibiotic approaches in order to reduce the use of antibiotics. In the traditional veterinary medicine, medicinal herbs are used to treat animal diseases. This is believed to be natural and safe therapeutic methods. In this in-vitro study, the Karuncheerakam (*Nigella sativa*) oil was examined for its antibacterial activity against the most common Gram positive bacteria, in order to develop an herbal remedy as a substitute for antibiotics. In this study, 84 Staphylococci organisms and 52 Streptococci organisms isolated from 100 veterinary clinical specimens were investigated. The disc-diffusion assay was used to detect the antibacterial activity. The antibacterial effect of this oil was very impressive as evidenced by the inhibition zone sizes obtained and all the isolated organisms tested were susceptible. In conclusion, the antibacterial activity of this oil on Gram positive bacteria was highly significant and this study suggests that Karuncheerakam oil can be used as an antibacterial agent targeting on Gram positive bacterial infection. However, this oil should be further examined through proper pharmacological and clinical investigations in order to be considered as a new alternative therapy for these infections.

Key words: Karuncheerakam, *Nigella Sativa*, Gram Positive Cocci, Antibacterial.

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