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Antibacterial Activities of Sea Cucumber (*Holothuroidea*) in Poultry

Wan Shafyruddin Wan Idris, ¹Zunita Zakaria & ¹Siti Khairani Bejo

*¹Department of Veterinary Pathology and Microbiology
Faculty of Veterinary Medicine, Universiti Putra Malaysia*

Abstract

The antibacterial activities of sea cucumber (*Holothuroidea*) were studied. Three commercialized sea cucumber products and one dried sea cucumber were tested for antibacterial activities against six clinical isolates of common pathogenic bacteria causing diseases in poultry using Disc Diffusion Method (Kirby-Bauer Method). Only one commercial product; “Gamat Gel” produced inhibition zones towards 5 tested bacteria namely *Escherichia coli*, *Salmonella sp.*, *Pasteurella multocida*, *Staphylococcus aureus*, and *Streptococcus sp.* in the initial susceptibility test. The biggest inhibition zones were produced against *Pasteurella multocida*, while smallest inhibition zones were produced against *Streptococcus sp.* No inhibition zone was produced against *Pseudomonas aeruginosa*. The determination of Minimal Inhibitory Concentration (MIC) of the Gamat Gel was carried out. It was found that the MIC value for all test bacteria were more than 1/12.

Keywords: Antibacterial activities, sea cucumber (*Holothuroidea*), pathogenic bacteria, poultry, disc diffusion method (Kirby-Bauer Method)