Antimicrobial Effect of Venom from Hogna carolinensis (Carolina Wolf Spider)

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With the rise of bacteria resistant to common antibiotics, scientists are having to research new sources of antimicrobial agents. Spider venoms have been shown to be of great potential as a source of these “new age” therapeutics. Hogna carolinensis (Carolina Wolf spider) was chosen as a test subject (as its venom was a candidate for having antimicrobial properties) to test the effect of the venom against certain species of bacteria. Other motivation as to why this particular species of Wolf spider was chosen include its large size, locality and ease of capture, as well as ease of venom collection. A procedure and equipment were developed to collect venom from the spider. The venom was then tested using standard susceptibility methods against the bacteria Staphylococcus aureus. Slight inhibition of the target bacteria was observed, but not enough for the venom to be considered effective as an antimicrobial agent. This is likely due to an inadequate amount of venom. There is hope for a repeat of this experiment, with a larger experimentation group, and more vigorous testing in the future.

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