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Comparison of HPLC profiles of venom of *Apis darsata* Fabricius (Giant Asian honey bee) and *Apis mellifera* Linnaeus (Western honey bee)

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Anaphylaxis due to *Apis dorsata* Fabricius (Giant Asian honey bee) venom is a recognized cause of death among people predominantly in rural areas of Sri Lanka. Characterization of venom components of *A. dorsata* is necessary as the data is limited. This study was conducted to determine the venom components of *A. dorsata* and to compare with venom components of *Apis mellifera* Linnaeus (Western honey bee). The venom of *A. dorsata* was collected by mild electrical stimulation of worker bees resulting in ejection of venom from its stinger. Commercially available crude venom and two pure venom components: phospholipase A_2 and melittin; from *A. mellifera* were used for comparison. High Performance Liquid Chromatography (HPLC) methodology for separation of venom components was established using a C18 (100 Å) chromatographic column and two mobile phases: A-0.1% trifluoroacetic acid (TFA) in deionized water and B-0.1% TFA in acetonitrile: 0.1% TFA in deionized water (80:20). The separated venom components were detected using photo diode array (PDA) detector at 220 nm. The best separation for venom components from both species were obtained with gradient elution 5% B-80% B for 40 min at flow rate of 2.0 mL/min. Similar HPLC profiles were obtained with a total of 7 peaks for both species. Two of the peaks were identified as phospholipase A_2 and mellitin from the crude venom of both species. Melittin gave the highest peak for both *A. dorsata* and *A. mellifera*. The similarities in venom components identified may suggest similar reactivities in patients who have had anaphylaxis due to venom components of *A. dorsata* and *A. mellifera*.

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