202/A

LD_{50} of venom of *Bungarus ceylonicus* (Ceylon krait) following an intramuscular injection to mice

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Sri Lanka is a country, which is reported to have a very high incidence of snakebites. Out of the two species of kraits found in Sri Lanka, *Bungarus ceylonicus* is endemic to Sri Lanka. The objective of the study is to determine the LD_{50} of the *Bungarus ceylonicus* venom following intramuscular injection and to compare it with the LD_{50} of *Bungarus caeruleus* venom.

Venom was obtained from adult snakes from the two species under investigation. Protein concentration of the crude venom was assessed and stored in Phosphate Buffered Saline pH 5.2 at -80^{o}C. Venom from *Bungarus caeruleus* and *Bungarus ceylonicus* was injected at concentrations 0.5, 1.0, 2, 4, 6, 7.5 8, 10 µg/mouse intramuscularly to groups of Balb C (*Mus minimus*) mice. The mice were observed closely for 24 hours. The time of death since injection of venom was recorded.

At 24 hours following injection, in the group injected with *Bungarus ceylonicus* venom, all mice managed to survive at concentrations below 4 µg/mouse and half of the group died at 7.5 µg/mouse. In the group injected with *Bungarus caeruleus* venom, all mice survived at concentration of 0.5 µg/ mouse, five out of ten mice survived at concentration of 1.0 µg/mouse. At concentrations above this level none of the mice were managed to survive for 24 hrs. All the mice that could not survive were died in less than 6 hours and the time duration was shorter with higher concentrations of venom.

The LD_{50} of *Bungarus caeruleus* venom following an intravenous injection into mice was determined as 1.9 µg in a previous study. In our study LD_{50} of *Bungarus caeruleus* venom following an intramuscular injection into mice was found to be much lower and was 1 µg. LD50 of venom of *Bungarus ceylonicus* snakes has not been documented up to date and in our study this was found to be 7.5 µg, which is significantly higher than *Bungarus caeruleus*. The time of death since injection of venom was less than 6 hours. This could be due to the potent neurotoxins in the krait venom.

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