

Web Table I Efficacy of Marketed Indian Antivenoms

Snake Species	Venom source	Antivenom tested	Conclusion
<i>N. naja</i> , <i>N. kaouthia</i>	West Bengal ^e [11]	S	<i>In vitro</i> : NA <i>In vivo</i> : Antivenom is more effective against <i>N. naja</i> than <i>N. kaouthia</i> . The former venom was more potent than that of <i>N. kaouthia</i> .
<i>N. naja</i>	West Bengal, ^e Maharashtra, ^c Tamil Nadu ^d [12]	M (prepared against venom from Eastern India)	<i>In vitro</i> : Poor recognition of venoms from Maharashtra and Tamil Nadu. <i>In vivo</i> : NA
<i>N. naja</i>	West Bengal, ^e Tamil Nadu ^d Maharashtra ^c [8]	H, M	<i>In vitro</i> : Specific monovalent antivenoms neutralized many enzymatic activities <i>In vivo</i> : Specific monovalent antivenoms outperformed the commercial antivenom
<i>N. naja</i>	Tamil Nadu ^d [13]	VI, C-VI	<i>In vitro</i> : NA <i>In vivo</i> : Soy protein nanoparticle conjugated antivenom was more effective than the commercial antivenom.
<i>N. naja</i>	Maharashtra ^c [14]	B, P, V	<i>In vitro</i> : Poor immunorecognition of low molecular weight toxins <i>In vivo</i> : NA
<i>D. russelii</i>	Delhi, ^a West Bengal, ^e Maharashtra, ^c Tamil Nadu [15]	M (prepared against venom from Southern India)	<i>In vitro</i> : Poor recognition of venoms from Delhi, West Bengal and Maharashtra <i>In vivo</i> : NA
<i>D. russelii</i>	Tamil Nadu, ^d Kerala, ^b Karnataka, West Bengal ^e [16]	B	<i>In vitro</i> : Poor recognition of venoms of West Bengal and Kerala populations <i>In vivo</i> : NA
<i>D. russelii</i>	Tamil Nadu ^d [17]	B, P, V, BE	<i>In vitro</i> : Poor recognition of low molecular weight toxins <i>In vivo</i> : NA
<i>D. russelii</i>	Tamil Nadu, ^d Bangladesh, Pakistan, Sri Lanka [18]	I, H, VI, BE, P, ICP	<i>In vitro</i> : Efficient immunorecognition of venoms of Tamil Nadu, Sri Lanka, Pakistan and Bangladesh <i>In vivo</i> : NA for venom from Tamil Nadu
<i>E. carinatus</i>	Tamil Nadu ^d [19]	B, P, V	<i>In vitro</i> : Poor recognition of low molecular weight toxins <i>In vivo</i> : NA
<i>B. caeruleus</i>	Tamil Nadu ^d [20]	B, P, BE	<i>In vitro</i> : NA Poor recognition of low molecular weight toxins <i>In vivo</i> : NA
<i>B. caeruleus</i> , <i>B. sindanus</i> , <i>B. romulusi</i>	Maharashtra and Karnataka [21]	H, P	<i>In vitro</i> : Poor recognition of low molecular weight toxins <i>In vivo</i> : Antivenom ineffective in neutralizing the venoms of <i>B. sindanus</i> and <i>B. romulusi</i>
<i>B. caeruleus</i> , <i>B. sindanus</i> , <i>B. fasciatus</i> , <i>N. naja</i> , <i>N. kaouthia</i> , <i>E. carinatus</i> , <i>E. c. sochureki</i>	Punjab, West Bengal, Rajasthan, Arunachal Pradesh, Maharashtra and Madhya Pradesh [7]	B, P, H, VI	<i>In vitro</i> : Poor recognition of venoms of the 'neglected many' species, as well as one of the 'big four' snake venoms <i>In vivo</i> : Antivenom ineffective in neutralizing the venoms of <i>B. caeruleus</i> and the 'neglected many' species except one, while neutralizing <i>E. carinatus</i> , <i>E. c. sochureki</i> and <i>N. naja</i> venoms

B: BSVL (Bharat Serums and Vaccines Ltd.); BE: Biological E. Limited; H: Haffkine Biopharmaceuticals Corporation Ltd.; M: monovalent antivenom raised in the study; C-VI: nanoparticle conjugated with VINS ASV; S: SIIPL (Serum Institute of India Pvt. Ltd.); P: PSVPL (Premium Serums and Vaccines Pvt. Ltd.); VI: VINS Bioproducts Ltd.; V: Virchow Biotech; I: Incepta Vaccine Ltd. (Dhaka, Bangladesh); ICP: Instituto Clodomiro Picado (San Jose, Costa Rica); NA: data not available/not performed. ^aChest Institute; ^bAgadathantra Snake Park; ^cHaffkine Institute; ^dIrula Snake Catchers' Industrial Cooperative Society; ^eCalcutta Snake Park.