

Supplementary text: How do snake venoms act?

Snake venoms exert a wide range of toxic activities at multiple sites in the body. A few protein families contain the bulk of venom toxins. These include enzymes like phospholipases A₂, metalloproteinases, serine proteinases and L-amino acid oxidases and non-enzymatic proteins like three-finger neurotoxins, kunitz type protease inhibitors, disintegrins and snake C-type lectins.¹ The proportion of these protein/toxin families varies between snake families, between species and in some instances even within species, which explains the great variety of clinical manifestations that occur following envenoming.^{2,3} These toxins function in different combinations to disrupt blood clotting, vessel walls, cell membranes and neuromuscular transmission. They also trigger an inflammatory cascade which contributes to further tissue damage. Figure-S1 outlines important sites of action and major effects of snake venom toxins.

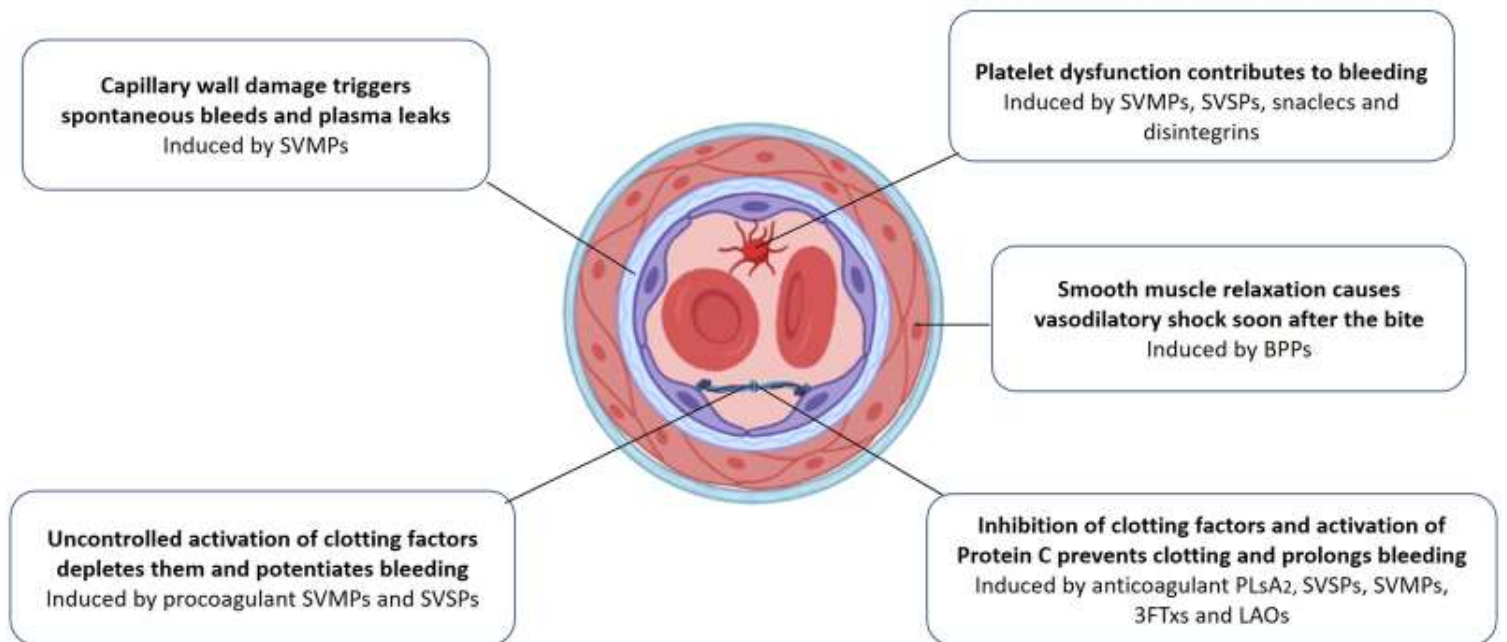


Figure S1a- Actions of snake venom toxins on the vessel wall and the hemostatic system⁴⁻⁶
 SVMP snake venom metalloproteases, SVSP snake venom serine protease, snaclecs snake C-type lectins, BPPs bradykinin potentiating peptides, PLsA₂ Phospholipases A₂, 3FTxs three finger toxins and LAOs L-amino acid oxidases

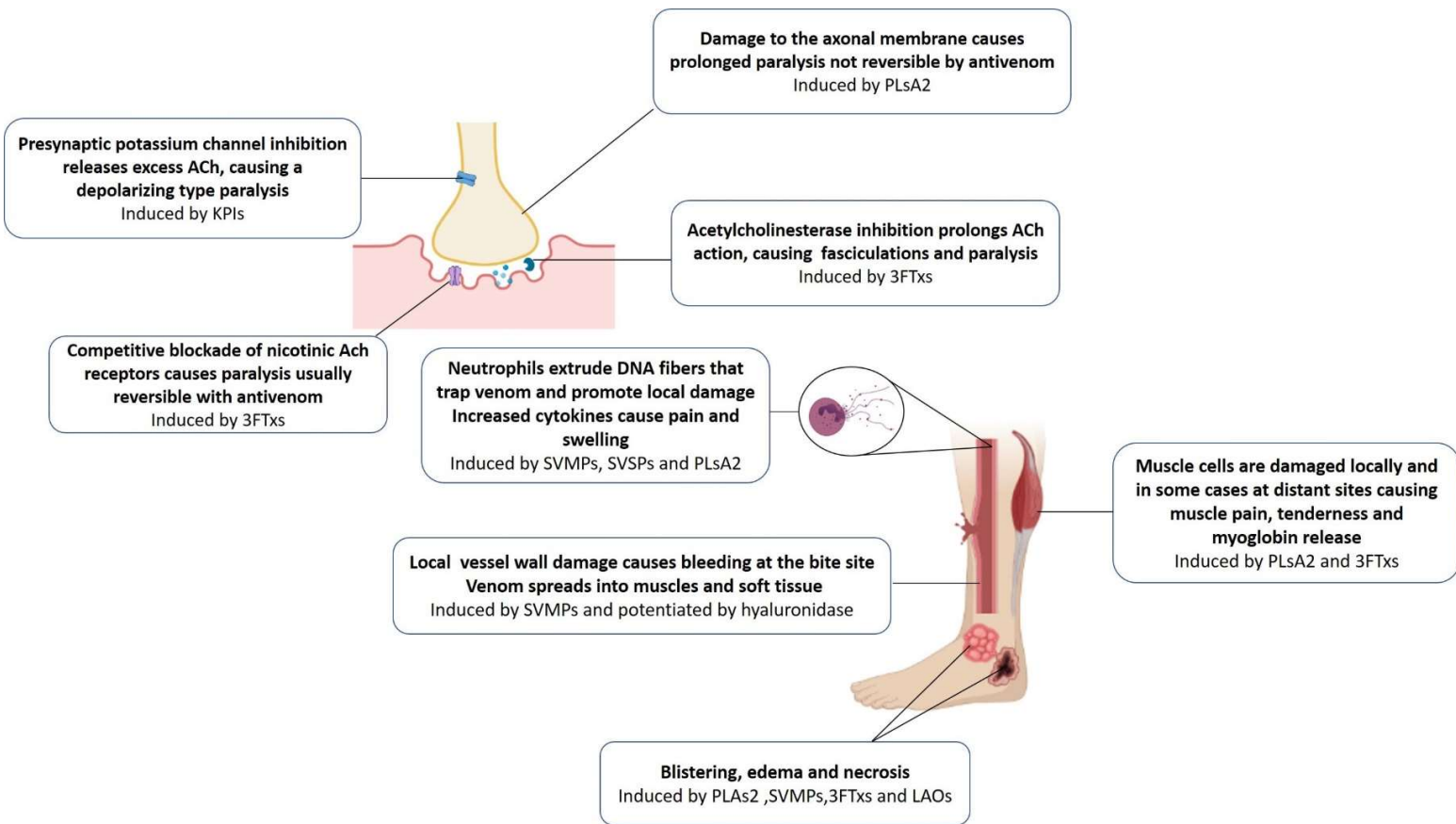


Figure S1b - Actions of snake venom toxins on the components of the neuromuscular junction, at the site of the bite and on local and distant skeletal muscles^{4,7-9}

KPI Kunitz type serine protease inhibitor, SVMP snake venom metalloproteases, SVSP snake venom serine protease, PLA₂ Phospholipases A₂, 3FTxs three finger toxins and LAOs L-amino acid oxidases

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