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Resumo	Cnidarians are equipped with nematocysts, which are specialized organelles used to inoculate venom during prey capturing and defense. Their venoms are rich in toxins and a potential source of bioactive compounds, however, poorly explored so far. In this work, the activity of the methanolic extracts from the hydromedusa Olindias sambaquiensis and the cubozoan jellyfish Chiropsalmus quadrumanus were studied in sympathetic neurotransmission. For that, bisected rat vas deferens - a classic model of sympathetic neurotransmission - were incubated with the extracts for further myographic and histopathological analysis. The O. sambaquiensis extract, at 0.1 µg/mL, facilitated the neurogenic contractions of the noradrenergic-rich epididymal portion, while reducing the noradrenaline (NA) potency, which suggests an interaction with postsynaptic α1-adrenoceptors. On the other hand, a higher concentration (1 µg/mL) leads to time- and frequency-dependent blockade of nerve-evoked contractions without significantly changing the response to exogenous NA. In turn, the C. quadrumanus extract at 0.1 µg/mL induced blockade of nerve-evoked noradrenergic contractions while reducing the potency to exogenous NA. Both extracts did not affect the purinergic neurotransmission or induce muscle damages. Our results demonstrate that O. sambaquiensis and C. quadrumanus extracts significantly interfere with the noradrenergic neurotransmission without altering purinergic response or smooth muscle structure on rat vas deferens.

	Such results bring to light the pharmacological potential of O. sambaquiensis and C. quadrumanus molecules for therapeutics focusing on noradrenergic neurotransmission.
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