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Efecto hipotensor de la adrenomedulina cerebelosa
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Abstract

Adrenomedullin (AM) is a peptide involved in cardiovascular control. AM binding sites are altered in cerebellum during hypertension, suggesting a role for cerebellar adrenomedullinergic system in the blood pressure regulation. The aim of the present study was to establish the functional effect of AM in the *in vivo* regulation of blood pressure (BP), through *in situ* AM or angiotensin II (ANG II) microinjection into cerebellum vermis of the rat. In the present experimental study, adult male spontaneously hypertensive rats (SHR) and Wistar Kyoto rats (WKY) were anesthetized, and cannulated in the cerebellar vermis. Following recovery, the animals were divided into three groups: AM (0.02 to 200 pmol/5 μ L), ANG II (200 pmol/5 μ L) and vehicle. Baseline BP and after the treatments were determined by non invasive plethysmography. Cannulation was verified post mortem with the *in situ* injection of a dye solution. Our results demonstrate that microinjection of AM into the cerebellar vermis caused a profound dose dependent hypotensive response in SHR but not in normotensive WKY rats (N=17; $p < 0.05$). This effect was specific since microinjection of ANG II or vehicle into the vermis did not cause significant changes in BP. Our findings suggest that cerebellar AM plays an important role in the regulation of BP and they constitute a novel mechanism of BP control which has not been described so far.

Keywords

AM, cerebellum, vermis, blood pressure, hypertension.

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