

综述

Apelin/APJ系统在心血管系统中的作用

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摘要

Apelin是孤儿受体APJ的天然配体, apelin/APJ系统对心血管系统的作用主要为: 可以通过拮抗血管紧张素II的作用而舒张血管降低血压; 可以作用于心肌引起强烈的正性肌力作用; 在心力衰竭早期表达增加而心力衰竭晚期表达降低, 因此, 推测apelin/APJ系统可能是防止心力衰竭发生的有效的代偿方式。

Apelin/APJ系统还可能参与调节胰腺对胰岛素的分泌, 并且该系统还可以促进视网膜毛细血管的增生。

Apelin/APJ系统在心血管系统的这些作用提示该系统可能在高血压、糖尿病血管病变、心力衰竭中发挥了一定的作用。

关键词 [apelin](#); [APJ](#); [心血管](#); [脂肪细胞](#)

分类号

Cardiovascular activities of apelin/APJ system

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Abstract

Apelin is a peptide which has been seen to act as an endogenous ligand of the orphan G-protein-coupled APJ (putative receptor protein related to the angiotensin receptor AT1). Apelin/APJ system displays several roles in the cardiovascular system. Among the total, the roles in cardiovascular system of apelin/APJ system can be summarized to 3 aspects, first, apelin/APJ system can relax vessels and decrease the blood pressure through anti-angiotensin II actions; second, apelin/APJ system showed strong positive inotropic activity; third, the expression of apelin in blood increased in the early stage of heart failure and decreased in the late stage of heart failure, therefore, someone inferred that apelin/APJ system was an effective compensative manner to inhibit heart failure. Apelin/APJ system may be involved in the secretion of insulin and promote the proliferation of retina blood capillary. All these results indicated that apelin/APJ system might have certain pathophysiological roles in cardiovascular diseases, such as hypertension, heart failure and type 2 diabetes mellitus.

Key words

[apelin](#) [APJ](#) [cardiovascular](#) [adipocyte](#)

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