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运动对高血压大鼠肾上腺髓质素的影响及其机制 点此下载全文

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基金项目：

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摘要：

目的：研究运动对高血压大鼠肾上腺髓质素（ADM）的影响及其作用机制。方法：将雄性自发性高血压大鼠（SHR）随机分为两组，即安静对照组和运动组，运动组SHR进行为期10周游泳运动。结果：①运动组SHR体重增长趋势明显低于对照组，运动组SHR安静血压较实验前显著降低，而对照组SHR安静血压较实验前显著升高；②运动组SHR血浆ADM含量与对照组相比显著性增加，运动组SHR血浆NO含量、cGMP含量和T－NOS活性较对照组显著性增加。结论：长期规律运动可以增加SHR血浆ADM含量，进而舒张血管降低血压，其机制可能是：ADM刺激血管内皮细胞，通过激活NOS，使NO生成增加，cGMP产生增多，使血管平滑肌松弛，血管舒张，血压降低。

关键词：高血压 运动 肾上腺髓质素 一氧化氮

Effect of exercises on ADM and mechanism of action in SHR Download Fulltext

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Fund Project:

Abstract:

Objective: To study effect of exercises on plasma adrenomedullin(ADM) in spontaneously hypertensive rats(SHR), and to explore the mechanism of ADM in depressing blood pressure through exercises. Method: Male SHR were divided into two groups randomly, control group and exercises group. Exercises group were trained with swimming for 10 weeks. Result: The resting blood pressure descended significantly in exercises group while it ascended significantly in control group, compared with that of pre-experiment. Comparing with control group,in exercises group the trend of body weight gain reduced, plasma ADM concentration increased significantly; and plasma NO concentration, T-NOS activity and cGMP production increased significantly. Conclusion: It suggests that exercises can inhibit the ascending of blood pressure by improving plasma ADM level. The possible mechanism is ADM can enhance T-NOS activity, then increased NO concentration and cGMP production.

Keywords:hypertension exercises adrenomedullin nitric oxide

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