

补肾中药对肾虚质大鼠海马区 ERK1 表达的影响^{*}

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摘要:目的 观察补肾中药对肾虚质大鼠学习记忆能力及海马区 ERK1 蛋白表达的影响, 从突触可塑性角度探讨其改善肾虚体质学习记忆能力的内在分子机制。方法 采用“猫吓鼠”造模法构建先天不足加后天恐吓型肾虚质大鼠模型, 分为模型组、补肾组、补心组、疏肝组 4 组, 补肾组、补心组、疏肝组分别予以六味地黄丸、天王补心丹、逍遥丸, 空白组产自正常孕鼠。Morris 水迷宫实验检测各组大鼠学习记忆能力; 称取体重、脑重比较生长发育情况; 免疫组化法检测海马 ERK1 阳性细胞表达。结果 与空白组比较, 模型组总路程显著增加, 30s 内目标区域停留时间、体重、脑重及海马区 ERK1 阳性表达显著减少; 与模型组比较, 补肾组、补心组、疏肝组总路程均显著减少, 30s 内目标区域停留时间、体重、脑重及海马区 ERK1 阳性表达显著增加; 与补心组、疏肝组比较, 补肾组总路程显著减少, 30s 内目标区域停留时间、体重、脑重及海马区 ERK1 阳性表达显著增加。结论 补肾中药可通过提高海马区学习记忆蛋白 ERK1 的表达对肾虚质大鼠学习记忆力起治疗作用; 海马区 ERK1 表达变化与肾藏志理论具有相关性。

关键词: 补肾中药; 肾藏志; 肾虚体质; 学习记忆; ERK1

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Effect of Chinese Herbal Medicine for Invigorating Kidney on Expression of ERK1 in Hippocampus of Rats with Kidney Deficiency

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Abstract Objective: To observe the effect of kidney-invigorating herbs on learning and memory ability and expression of ERK1 protein in hippocampus of rats with kidney-deficiency syndrome, and to explore the intrinsic molecular mechanism of improving learning and memory ability of kidney-deficiency syndrome from the perspective of synaptic plasticity. **Method:** The rat model of congenital insufficiency and acquired intimidation of kidney deficiency was established by "cat scare rat" model. The rats were divided into four groups: model group, kidney-invigorating group, heart-tonifying group and liver-soothing group. The kidney-invigorating group, heart-tonifying group and liver-soothing group were given Liuwei Dihuang Pills, Tianwang Buxin Bolus and Xiaoyao pills respectively. The blank group was