

论文  
延胡索乙素对大鼠垂体促肾上腺皮质激素(ACTH)分泌的刺激作用

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摘要:

镇痛药吗啡以及安定药氯丙嗪均有刺激垂体促肾上腺皮质激素释放的作用.延胡索乙素具有类似吗啡的镇痛作用和类似氯丙嗪的安定作用,它是否也能引起垂体促肾上腺皮质激素的释放是本文研究的问题.实验用体重80—150克的雄性大白鼠,以肾上腺维生素C含量的下降做为垂体促肾上腺皮质激素释放的指标.给大鼠皮下注射延胡索乙素50或70毫克/公斤(有效镇痛和安定剂量)后,肾上腺维生素C含量明显下降,说明延胡索乙素有兴奋垂体肾上腺系统的作用.给去垂体大鼠注射延胡索乙素并不能引起肾上腺维生素C含量下降,说明延胡索乙素兴奋垂体-肾上腺系统的作用在于引起垂体促肾上腺皮质激素的分泌,而不是直接兴奋肾上腺皮质.给大鼠注射戊巴比妥钠40毫克/公斤,或注射去氢皮质醇(prednisolone)15毫克/公斤后,延胡索乙素引起垂体促肾上腺皮质激素释放的作用消失,说明延胡索乙素这一作用的部位有可能是在下视丘.

关键词:

THE STIMULATION OF THE RELEASE OF ACTH BY CORYDALIS B IN RATS

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Abstract:

Corydalis B has been reported to have strong analgesic and sedative actions resembling morphine and a number of tranquilizers. It is well known that both morphine and the tranquilizers, such as reserpine and chlorpromazine, stimulate the release of ACTH, as well as depress the secretion of ACTH by the pituitary in response to a number of stressful stimuli under certain conditions. Since Corydalis B has been shown to have pharmacological properties similar to those of the aforementioned compounds, an attempt was made to study whether corydalis B would also affect the pituitary-adrenal axis. Experiments were carried out on male rats. A fall in adrenal ascorbic acid was used as the criterion for the release of ACTH. Subcutaneous injection of Corydalis B in a dose of 50 or 70mg/kg, the effective analgesic and sedative dosage, caused marked adrenal ascorbic acid and cholesterol depletion in intact rats. However, the ascorbic acid depleting effect of the compound disappeared in hypophysectomized rats. Pretreatment of rats with pentobarbital (40 mg/kg) or prednisolone (15 mg/kg) completely prevented the adrenal ascorbic acid depletion. Repeated injections of Corydalis B for 6 days, induced the development of tolerance to the pituitary-stimulating effect of the compound. From these results, it would appear that Corydalis B has a stimulatory action on the pituitary-adrenal system.

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