

论文

中药复方对戊四氮致痫小鼠行为及生长变化的干预作用

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摘要:

目的 观察中药复方(AAP)对戊四氮(PTZ)致痫小鼠行为及生长变化的影响。方法 60只健康成年雄性昆明小鼠随机分为对照组(CK组)、模型组(PTZ组)、中药大剂量组(AAPI组)、中药中剂量组(AAPm组)、中药小剂量组(AAPs组)和丙戊酸钠组(VPA组),每组10只。对照组和模型组分别给予生理盐水4mL/kg·d灌胃;中药各组分别给予中药复方大、中、小剂量(14.8g/kg、7.4g/kg、3.7g/kg)灌胃,每天1次;丙戊酸钠组腹腔注射VPA(20mg/kg·d),连续7d。最后1次灌胃后,除对照组外,其他各组均腹腔内注射PTZ 95mg/kg,采用Yahas分级法观察小鼠行为学改变,记录小鼠痫性发作级别、发作潜伏期、发作持续时间;测定各组小鼠体质量增加值。结果 与PTZ组相比,AAPs组小鼠发作潜伏期延长,发作持续时间缩短(P<0.05)。与VPA组比较,中药AAPI、AAPm、AAPs各组小鼠体质量增加(P<0.05)。结论 AAPs小剂量能延长PTZ致痫小鼠发作潜伏期,缩短PTZ致痫小鼠发作持续时间,抗惊厥效果良好;且AAP能明显增加小鼠体质量。

关键词: 癫痫; 模型; 动物; 中药复方; 发作潜伏期; 发作持续时间; 体质量

Intervention effects of Chinese herbal compound on the behavior and growth of mice with epilepsy induced by pentetrazole

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Abstract:

Objective To observe the effect of AAP, a Chinese herbal compound, on the behavior and growth of mice with seizures induced by pentetrazole (PTZ). Methods Sixty healthy mature male Kunming mice were randomly divided into 6 groups (n=10 in each group): the control group (CK group), the model group (PTZ group), three AAP groups with large, medium and small doses (AAPI group, AAPm group and AAPs group), and sodium valproate group (VPA group). The control group and model group were given intragastric administration of distilled water (4mL/kg·d); the three AAP groups were given intragastric administration of AAP at doses of 14.8g/kg, 7.4g/kg and 3.7g/kg respectively; and the VPA group was given intraperitoneal injection of sodium valproate (20mg/kg·d). After 7 days of treatment, the seizure was induced by intraperitoneal injection with pentylenetetrazol (95mg/kg) in all groups other than the control group. Behavioral observation was conducted with Yuhass 5 grade assessment during the establishment of the models, and the weight gain values were recorded. Results Compared with the model group, the latent period was prolonged and time span of the seizure was reduced in the AAPs group (both P<0.05).The weight gain value in all the three AAP groups increased significantly (P<0.05) compared with that in the VPA group. Conclusion AAP can extend the latency, reduce the duration of epileptic seizures induced by PTZ, and increase the weight gain, so it has a positive anti convulsant effect on mice.

Keywords: Epilepsy; Models, animals; Chinese herbal compound; Latent period; Time span of the seizure; Weight gain

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