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吴茱萸多基原、多产地毒性效应特征研究

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作者中文名	作者英文名	单位中文名	单位英文名	**E-Mail**
李莉	LI Li	四川省中医药科学院,国家中医药管理局中药质量生物学评价重点研究室,四川道地药材系统开发工程技术研究中心,中药品质评价与创新中药研究四川省重点实验室,四川 成都 610041	Sichuan Academy of Traditional Chinese Medicine Sciences, Traditional Chinese Medicine Quality of the Administration of Traditional Chinese Medicine, Sichuan Provincial Key Laboratory of the Quality and Innovation Research of Chinese Materia Medica, Chengdu 610041, China	*赵军宁,Tel:(028)85226120,E-mail:zarmy@189.cn
赵军宁	ZHAO Junning	四川省中医药科学院,国家中医药管理局中药质量生物学评价重点研究室,四川道地药材系统开发工程技术研究中心,中药品质评价与创新中药研究四川省重点实验室,四川 成都 610041	Sichuan Academy of Traditional Chinese Medicine Sciences, Traditional Chinese Medicine Quality of the Administration of Traditional Chinese Medicine, Sichuan Provincial Key Laboratory of the Quality and Innovation Research of Chinese Materia Medica, Chengdu 610041, China	
易进海	YI Jinhai	四川省中医药科学院,国家中医药管理局中药质量生物学评价重点研究室,四川道地药材系统开发工程技术研究中心,中药品质评价与创新中药研究四川省重点实验室,四川 成都 610041	Sichuan Academy of Traditional Chinese Medicine Sciences, Traditional Chinese Medicine Quality of the Administration of Traditional Chinese Medicine, Sichuan Provincial Key Laboratory of the Quality and Innovation Research of Chinese Materia Medica, Chengdu 610041, China	
舒光明	SHU Guangming	四川省中医药科学院,国家中医药管理局中药质量生物学评价重点研究室,四川道地药材系统开发工程技术研究中心,中药品质评价与创新中药研究四川省重点实验室,四川 成都 610041	Sichuan Academy of Traditional Chinese Medicine Sciences, Traditional Chinese Medicine Quality of the Administration of Traditional Chinese Medicine, Sichuan Provincial Key Laboratory of the Quality and Innovation Research of Chinese Materia Medica, Chengdu 610041, China	
李波	LI Bo	泸州医学院,四川 泸州 646000	Luzhou Medical College, Luzhou 646000, China	

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中文摘要:目的:研究有毒中药吴茱萸多基原、多产地的毒性特征变化。 方法:采用小鼠急性毒性和亚急性毒性试验方法,分别给小鼠灌胃吴茱萸、疏毛吴茱萸、石虎等9个不同产地样品水提取物1次或者连续15 d,测定其对小鼠的最大耐受量(MTD)或单次最大给药量,同时观察毒性症状;亚急性毒性试验测定各组动物血清丙氨酸氨基转移酶(ALT)、天门冬氨酸氨基转移酶(AST)、总胆固醇(TC)、甘油三脂(TG)生化指标,计算肝脏系数,并观察肝脏组织病理变化。 结果:小鼠急性毒性试验中吴茱萸3个产地样品MTD分别为生药62,44.8,35.8 g·kg^{-1};疏毛吴茱萸3个产地样品MTD分别为生药56,44.8,35.8 g·kg^{-1};石虎3个产地样品最大给药量分别为生药60,54,45 g·kg^{-1}。9个样品的毒性症状基本一致,主要表现为怠动,小鼠扭体运动,呼吸急促等。吴茱萸亚急性毒性试验中,给药组小鼠ALT均有不同程度升高,小鼠肝脏指数均明显升高,肝脏病理显示给药组部分动物肝细胞胞浆显疏松,可伴中央静脉和(或)小叶下静脉充血。 结论:连续或单次给小鼠灌胃吴茱萸水提物后对小鼠均有一定的毒性,肝脏为其毒性靶器官之一;吴茱萸相对毒性大小与产地关系密切,而与基原似无明显相关性。

中文关键词:吴茱萸 基原 产地 毒性

Research on toxicity characteristics in Evodia Fructus of different orgins and producing areas

Abstract: Objective : To study the toxicity of water extracts from the fruits of Evodia Fructus in different producing areas. Method : Compare the toxicity of the extracts from different Evodia Fructus on mice by the methods of acute and subacute toxicity test. The mice were given the extracts for 1 d to test the maximal tolerance dose (MTD) or maximal dose and observe the acute toxic symptoms; The mice were given the extracts for 15 d and then detected the level of serum alanine aminotransferase(ALT), aspartate aminotransferase(AST) and triglyceride(TG).The liver index was calculated, and the liver histological changes were investigated. Result :The MTD of water extracts from the fruits of Evodia Fructus is 62, 44.8, 35.84 g·kg^{-1}; the MTD of Evodia Fructus is 56, 44.8, 35.84 g·kg^{-1}; the maximal dose of Evodia Fructus is 60, 54, 45 g·kg^{-1}.The toxic symptoms of the mice which had been given the nine samples were almost consistent. Compared with the control group in subacute toxicity test, the level of serum ALT and the liver index were all increased. The liver histological were changed. Conclusion : When water extracts from the fruits of Evodia Fructus are given to mice one or more times. It may be toxic and induce liver damage.There is no significant correlation between the toxicity and Evodia orgins,while the toxicity seems to be more closely related to the producing area.

keywords: Evodia Fructus orgin habitat toxicity

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