



中文标题
检索
跨刊检索

自微乳载药系统(SMEDDS)用于丹参酮的增溶及吸收研究

投稿时间: 2009-12-24 责任编辑: 周燕 [点此下载全文](#)

引用本文: 汪圣华,赵娜,杨荣平,吕国军,王云红,谢威扬,马小军.自微乳载药系统(SMEDDS)用于丹参酮的增溶及吸收研究[J].中国中药杂志,2010,35(9):1119.

DOI: 10.4268/cjcm20100906

摘要点击次数: 684

全文下载次数: 220

广告合作

| 作者中文名 | 作者英文名 | 单位中文名 | 单位英文名 | E-Mail |
|-------|---------------|--|---|-----------------|
| 汪圣华 | WANG Shenghua | 中国科学院 大连化学物理研究所, 辽宁 大连 116023 | Dalian Institute of Chemical Physics, Chinese Academy of Sciences, Dalian 116023, China | |
| 赵娜 | ZHAO Shan | 中国科学院 大连化学物理研究所, 辽宁 大连 116023 | Dalian Institute of Chemical Physics, Chinese Academy of Sciences, Dalian 116023, China | |
| 杨荣平 | YANG Rongping | 中国科学院 大连化学物理研究所, 辽宁 大连 116023 重庆市中药研究院, 重庆 400065 | Dalian Institute of Chemical Physics, Chinese Academy of Sciences, Dalian 116023, China Chongqing Academy of Chinese Materia Medica, Chongqing 400065, China | |
| 吕国军 | LV Guojun | 中国科学院 大连化学物理研究所, 辽宁 大连 116023 | Dalian Institute of Chemical Physics, Chinese Academy of Sciences, Dalian 116023, China | |
| 王云红 | WANG Yunhong | 成都中医药大学, 四川 成都 611731 | Chengdu University of Traditional Chinese Medicine, Chengdu 611731, China | |
| 谢威扬 | XIE Weiyang | 中国科学院 大连化学物理研究所, 辽宁 大连 116023 | Dalian Institute of Chemical Physics, Chinese Academy of Sciences, Dalian 116023, China | |
| 马小军 | MA Xiaojun | 中国科学院 大连化学物理研究所, 辽宁 大连 116023 | Dalian Institute of Chemical Physics, Chinese Academy of Sciences, Dalian 116023, China | maxj@dicp.ac.cn |

基金项目: 国家自然科学基金重点项目(20736006); 中国科学院知识创新工程重要方向项目(KJ951-A1-02); 中国科学院支持天津滨海新区建设科技行动计划项目(TJZX2-YW-14); 重庆市自然科学基金重点项目(CSTC2009BA5034)

中文摘要:目的: 考察自微乳载药系统(SMEDDS)对丹参酮的增溶和吸收的影响, 以指导丹参酮SMEDDS处方的选择。方法: 紫外分光光度法测定SMEDDS溶液中丹参酮的溶解度, 采用大鼠在小肠吸收模型考察丹参酮SMEDDS的吸收。结果: 丹参酮在SMEDDS溶液中的溶解度是水中的10倍, 载体中的2.5倍, 且SMEDDS处方中油相(中链甘油三酸酯:MCT)比例增加, 溶解度增加; 丹参酮SMEDDS和载体的吸收常数 K_a 分别为0.479、0.326 h^{-1} , $t_{1/2}$ 分别为1.44、2.12 h, SMEDDS处方中油相(MCT)比例增加, 吸收增加。结论: SMEDDS能显著增加丹参酮的溶解度和在大鼠小肠的吸收, 且SMEDDS处方中MCT能促进丹参酮的增溶和吸收。

中文关键词: 自微乳载药系统 丹参酮 增溶 吸收

Self-microemulsifying drug delivery system increasing solubility and intestine absorption in situ of tanshinones

Abstract: Objective: Study the effect of self-microemulsifying drug delivery system(SMEDDS) on the solubility and absorption of tanshinones to guide the selection of composition of tanshinone SMEDDS. Method: The solubility of tanshinones in the solution of SMEDDS was determined by UV-spectrometer and the absorption of tanshinone SMEDDS was determined by HPLC as the detection method. Result: The solubility of tanshinones in solution of SMEDDS was 10 times in water and 2.5 times in micelle solution. The solubility of tanshinones in solution of SMEDDS was increased with the increasing of oil(MCT) in composition of tanshinone SMEDDS. The absorption constants(K_a) in SMEDDS and micelle solution was 0.479 h^{-1} and 0.326 h^{-1} respectively, and the absorption half life($t_{1/2}$) was 1.44 h and 2.12 h respectively. The absorption was increased with the oil increasing in composition of tanshinone SMEDDS. Conclusion: SMEDDS can increase the solubility and absorption of tanshinones significantly and the increasing of oil content(MCT) in SMEDDS composition promote the dissolution and absorption of tanshinones.

keywords: self-microemulsifying drug delivery system(SMEDDS) tanshinones solubility intestine absorption in situ

[查看全文](#) [查看/发表评论](#) [下载PDF阅读器](#)