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关节腔注射用青藤碱微球的制备及其性质考察

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摘要
目的 制备一种可用于关节腔注射的盐酸青藤碱明胶缓释微球并考察其性质，以减少用药次数，降低毒性及不良反应。方法 应用乳化-化学交联法制备盐酸青藤碱明胶微球，对其外观、粒度、载药量、包封率及释药曲线等进行考察；采用UV法测定青藤碱的含量。结果 微球表面光滑圆整，平均粒径为7.06 μm, 载药量和包封率质量分数分别为10.4 %和73.3 %，体外释放速率常数K= 0.132 5 h-1，t50为9.58 h。，结论 采用乳化-化学交联法制备的盐酸青藤碱明胶缓释微球具有明显的缓释作用，有望成为一种治疗风湿性关节炎的新制剂。

关键词 药剂学 关节腔注射微球 乳化交联法 青藤碱 明胶 体外释放

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Preparation and characterization of sinomeine hydrochloride gelatin microspheres for intra-articular injection

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Abstract
Objective To prepare sinomeine hydrochloride gelatin microspheres (SM-GMS) for intra-articular injection, and evaluate their properties. Methods The SM-GMS were prepared by emulsification cross-linking method. The particle size, morphology, drug-loading, encapsulation efficiency and in vitro release of the microspheres were examined. The content of SM-GMS was determined by UV. Results The microspheres were spherical with smooth surface, the mean diameter was 7.06 μm, the drug loading was 10.4 % and the encapsulation efficiency was 73.3 %. The in vitro release constant and t50 of the microspheres were 0.132 5 h-1 and 9.58 h, respectively. Conclusion Sinomeine hydrochloride could be released from the SM-GMS in a sustained manner and it can be used as a new preparation to cure rheumatoid arthritis.

Key words pharmaceutics intra-articular injection microspheres emulsion cross-linking method sinomeine hydrochloride gelatin in vitro release

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