

论著

## 表柔比星-聚乳酸缓释微球局部治疗肝癌

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收稿日期 2006-3-13 修回日期 网络版发布日期 2006-10-25 接受日期

**摘要** 摘要: 目的 研究表柔比星-聚乳酸缓释微球 (EPI-PLA-MS) 局部给药治疗肝癌的效果。方法 复乳-溶剂挥发法制备 EPI-PLA-MS。将40只昆明小鼠随机分为5组, 每组8只, 分别腹腔注射不同剂量的游离表柔比星 (FEPI), 计算最大耐受量(MTD)。H22皮下实体瘤肝癌荷瘤小鼠3组, 每组5只, 分别用生理盐水 (normal saline, NS)、空白微球和含药微球 (含EPI 9mg/kg) 瘤内注射给药, 2周后取瘤称重。H22腹水型肝癌荷瘤小鼠3组, 每组5只, 分别用NS、空白微球和含药微球 (含EPI 9mg/kg) 腹腔注射给药, 计算动物生命延长率。结果 FEPI腹腔注射的MTD为9mg/kg。EPI-PLA-MS 瘤内给药后含药微球组和空白微球组的抑瘤率分别为40.35%和36.09%。腹腔给药后能显著延长荷瘤鼠的生存时间, 含药微球组和空白微球组生命延长率分别为153.49%和142.22%。结论 EPI-PLA-MS 是一种有效低毒的药物新剂型, 在局部治疗肝癌方面具有良好的临床应用前景。

**关键词** [表柔比星](#) [缓释剂](#), [微球](#) [肝肿瘤](#) [局部治疗](#)

分类号

## Treatment of Hepatocellular Carcinoma in Mice with Locally Administered Epirubicin-loaded Poly(D,L)-lactic Acid Microspheres

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**Abstract** ABSTRACT: Objective To study the effectiveness of treating hepatocellular carcinoma (HCC) in mice with locally administered epirubicin-loaded poly(D,L) - lactic acid microspheres (EPI-PLA-MS ). Methods EPI-PLA-MS was prepared with double emulsion solvent evaporation technique. Five groups of mice (n=8 in each group) were intraperitoneally injected with five different doses of free epirubicin (FEPI), and the maximum tolerated dose (MTD) was calculated. Then 15 mice with transplanted subcutaneous H22 HCC were divided into three groups(n=5), which were respectively intratumorally injected with normal saline (NS), blank microspheres, and EPI-PLA-MS (with 9mg/kg of EPI). After two weeks the tumors were excised and weighed. Another 15 mice with transplanted H22 ascites HCC were divided into three groups(n=5), which were intraperitoneally injected with the same drugs, and the increased life span were registered exactly. Results The MTD of intraperitoneally injected FEPI was 9mg/kg. The tumour-inhibiting rates was 40.35% and 36.09% when EPI-PLA-MS were administered by intratumoral injection to the mice with subcutaneous H22 HCC. It significantly prolonged the survival time of mice with H22 ascites HCC and the increased life span by 153.49% and 142.22% when EPI-PLA-MS were intraperitoneally administered. Conclusion EPI-PLA-MS is a new sustained-release preparation with high-efficacy and low-toxicity in treating HCC and has shown promising prospects when administered locally.

**Key words** [epirubicin](#) [sustained-release drug](#) [microsphere](#) [hepatocellular carcinoma](#) [local treatment](#)

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