

复方软胶囊中齐墩果酸在大鼠体内的药动学及相对生物利用度

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摘要

目的 研究复方软胶囊中齐墩果酸在大鼠体内的药物动力学以及它与市售齐墩果酸片剂相比的相对生物利用度。方法 应用HPLC-MS法,以市售齐墩果酸片剂为参比,测定两种制剂灌胃给药后大鼠血浆中的药物浓度,用非隔室动力学理论对大鼠血药浓度-时间数据进行处理得出相应的药动学参数,并计算相对生物利用度。结果 测得复方软胶囊、齐墩果酸片大鼠灌胃给药后齐墩果酸的Tmax1分别为(0.54±0.25)h和(0.50±0.00)h,Cmax1分别为(897.28±120.71)ng·mL⁻¹和(521.92±35.99)ng·mL⁻¹;Tmax2分别为(3.92±0.20)h和(4.33±0.26)h,Cmax2分别为(1259.68±77.33)ng·mL⁻¹和(340.52±31.42)ng·mL⁻¹;两种制剂的AUC₀₋₃₆分别为(8106.64±666.55)ng·mL⁻¹·h和(4164.60±559.32)ng·mL⁻¹·h,相对生物利用度为194.66%。结论 自制复方齐墩果酸软胶囊与市售片剂在大鼠体内的药物动力学行为存在显著性差异,自制复方齐墩果酸软胶囊能明显提高齐墩果酸的生物利用度。

关键词 [药剂学](#) [软胶囊](#) [齐墩果酸](#) [HPLC-MS](#) [药动学](#) [生物利用度](#)

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Pharmacokinetics and relative bioavailability of compound oleanolic acid soft capsules in rats

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Abstract

Objective To determine the pharmacokinetic parameters of oleanolic acid in compound oleanolic acid soft capsules after intragastric administration in rats, and calculate the relative bioavailability compared to commercial oleanolic acid tablets. Methods The concentration of oleanolic acid in plasma was determined by HPLC-MS method after intragastric administration of oleanolic acid tablets and compound oleanolic acid soft capsules. The relative bioavailability and pharmacokinetic parameters of oleanolic acid were obtained by using the un-compartment dynamics theory. Results The pharmacokinetic parameters of the test and reference preparations after intragastric administration in rats were Tmax1 (0.54±0.25) h and (0.50±0.00) h, Cmax1 (897.28±120.71) ng·mL⁻¹ and (521.92±35.99) ng·mL⁻¹, Tmax2 (3.92±0.20) h and (4.33±0.26) h, Cmax2 (1259.68±77.33) ng·mL⁻¹ and (340.52±31.42) ng·mL⁻¹, AUC₀₋₃₆ (8106.64±666.55) ng·mL⁻¹·h and (4164.60±559.32) ng·mL⁻¹·h, respectively. The relative bioavailability of the test preparation was 194.66%. Conclusions The pharmacokinetic parameters of the test and reference preparations differed significantly, and the test preparation improved the relative bioavailability of oleanolic acid remarkably.

Key words [pharmaceutics](#) [soft capsule](#) [oleanolic acid](#) [HPLC-MS](#) [pharmacokinetics](#) [bioavailability](#)

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