

论文

氯化锌和络合锌对小鼠尾部颗粒层形成的影响

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摘要:

目的 探讨氯化锌(ZnCl₂)和络合锌(Zn-EDTA)对小鼠尾部颗粒层形成的影响。方法 利用健康昆明种雄性小鼠尾部建立鳞状表皮模型, 将雄性小鼠模型随机分为阴性对照组, 阳性对照组, ZnCl₂低、中、高剂量组, Zn-EDTA低、中、高剂量组, 分别灌胃给药12d。末次给药次日处死小鼠, 制作小鼠尾部皮肤鳞状表皮病理切片, 光学显微镜下观察鼠尾100个鳞片中有颗粒层的鳞片数。结果 实验结果表明, 不同剂量的ZnCl₂和Zn-EDTA均可明显促进小鼠尾鳞片颗粒层形成数(P<0.05), 与阳性对照药比较差异无统计学意义(P>0.05)。结论 ZnCl₂及Zn-EDTA具有促进小鼠尾部皮肤鳞片角化的作用。

关键词: 氯化锌; 络合锌; 皮肤角化; 银屑病; 小鼠

Effects of ZnCl₂ and Zn-EDTA on formation of the epidermis granular layer in the mouse tail

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Abstract:

Objective To study effects of ZnCl₂ and Zn-EDTA on formation of the epidermis granular layer in the mouse tail. Methods The models of tail scale epidermis were established by using healthy male Kunming mice. The mice were randomly divided into the negative and positive control groups, low, middle and high dosage ZnCl₂ groups, or and low, middle and high dosage Zn-EDTA groups. According to the protocol, normal saline, methotrexate, ZnCl₂ or Zn-EDTA were intragastrically given to each group for 12 consecutive days. 1d after the last administration, mice were sacrificed and pathological sections of the tail scale epidermis were made to count the number of scales with the granular layer in 100 scales under a light microscope. Results Different doses of ZnCl₂ and Zn-EDTA all significantly promoted the formation of the granular layer in the mouse tail scale epidermis (P<0.05), while no significant difference was found compared with the methotrexate group, which acted as the positive control (P>0.05). Conclusion ZnCl₂ and Zn-EDTA promote skin keratinization of the mouse tail scale.

Keywords: ZnCl₂; Zn-EDTA; Skin keratinization; Psoriasis; Mouse

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