분류번호	Ⅳ-P-1

HISTOPATHOLOGY AND PERCUTANEOUS ABSORPTION OF TOPICAL FORMULATION CONTAINING NEW CAPSAICIN ANALOG.

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A new capsaicin analog modified with 4-hydroxyl and alkyl chain of capsaicin was a very potent antiinflammatory analgesic drug and may be clinically useful for those who have rheumatoid arthritis, diabetic neuropathy and cancer. The purpose of this study was to investigate histopathology after short and long term application of poloxamer-based gels, and percutaneous absorption of various topical formulations. Poloxamer-based gel was prepared by cold method using poloxamer 407. The poloxamer gels was applied to dorsal sites of hairless mouse skin during one week or one month for the evaluation of skin irritation. The applied site was then sectioned for histopathologic examination. The topical formulations were also prepared using CMC, HPMC, MC, carbopol and glycerylmono stearate. Skin variation of poloxamer gels was studied using excised hairless mouse, rat, hamster and human penis skin. Franz-type diffusion cells were used for skin penetration of drug against receptor phase filled with about 10ml of 0.9% saline solution kept at 32℃. The concentration of drug was determined by the reverse phased C18, Symmetry℃ HPLC with fluorometeric detector. No skin erythema was observed after dorsal application of poloxamer-based gels for one week or one month. No histopathologic changes was also examined, suggesting no skin toxicity of poloxamer-based gels. The order of flux rate was HPMC > MC (CMC > poloxamer >> glycerylmono stearate (carbopol. There was a skin variation of poloxamer gels. The flux rate of poloxamer gels was highest in case of hairless mouse followed by rat, human and hamster skin. The Partial support-Ministry of Science and Engineering (HAN project).