

Abstract

Effective topical application of cyclosporine is considered to be therapeutically important in the treatment of psoriasis, however, it is complicated by barrier properties of cornified skin layers. Potentially promising approach to solving this problem is to use electroporation. Thesis provides a basic overview of the current state of knowledge in the field of transdermal electroporation. The experiment focuses on penetration testing of cyclosporine in the two pulse protocols. The difference between the application of two or ten rectangular pulses of 10ms duration at time 0 and 6 hours, at a distance of 30 seconds and the voltage pulse 450 is reflected only in the period up to 2 hours from the start of permeation, long-term effect was demonstrated. When verifying the importance of arrangement of electrodes there was no difference between the type of needle-and needle arrangement with a flat surface electrode observed.