

# Efficacy and tolerability of a spray product containing hydroxypropyl chitosan, Climbazole and Piroctone olamine, applied twice weekly for the treatment of the Pitiriasis Versicolor.

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## Abstract

### BACKGROUND:

The aim of this study was to demonstrate the effectiveness of a product containing hydroxypropyl chitosan, Climbazole and Piroctone olamine, by monitoring the adherence and the penetration of the molecules in the skin. Confocal microscopy led us to show the persistence of the active compound for a long time in the stratum corneum, thanks to the presence of hydroxypropyl chitosan. This evidence suggests a new protocol of application (a biweekly application, rather than daily).

### METHODS:

Thirty patients (17 Males, 13 Females; average age 20,8) were selected from 3 dermatological centers: the Dermatological Clinic of the University of Naples "Federico II"; the Dermatological outpatient clinic of the private hospital "Villa Nigrisoli" of Bologna; the Section of Cutaneous Appendages of the European Dermatological Institute of Milan. The study protocol entailed application of a topical spray product 2 evenings a week for 2 months. Confocal microscopy, dermoscopy and photographic documentation were performed at the moment of diagnosis (T0), 12 hours after the first application (T1), after 7 days (T2), after 1 month (T3) and after 2 months (T4).

### RESULTS:

The improvements of clinical symptoms were documented by dermoscopy and digital photos. Confocal microscopy shows the persistence of the product in the stratum corneum, at different times of observations.

### CONCLUSION:

A biweekly application of a product containing hydroxypropyl chitosan, Climbazole and Piroctone olamine shows a clinical significant improvement, evaluated through digital photographs and dermoscopic images, with complete resolution at T4 in 100% of cases.