

Wissenschaftliche Posterausstellung: Poster 7

# The use of concentrated heat improves burning, itching, swelling and quality of life during recurrence episodes of herpes labialis– results of a pharmacy based prospective, double-arm, observational cohort study with either acyclovir ointment or Herpothem<sup>®</sup> treatment under real life conditions

*Christian Müller (1) and Lars Christian Brenn (2)*

*(1) Bergwerkstraße 12a, 79688 Hausen, Germany, cjmueller@gmx.de; 07622/6679610*

*(2) Department of Medical Science and Operations, RIEMSER Pharma GmbH, An der Wiek 7; 17493 Greifswald-InselRiems, Germany*

## Background

Recurrent herpes labialis, primarily caused by HSV-1 is a common skin-infection with occurrence of prodromes and crusts.<sup>1</sup> The prodrome phase is associated with itching, burning and pain prior to the appearance of erythema and papule formation.<sup>2</sup> All available antiviral drugs aim to block viral replication in order to shorten the duration of symptoms and accelerate the healing process. The inactivation of herpes simplex type 1 and 2 with heat has already been described.<sup>4</sup> Until now, there is no real life data for topical herpes labialis treatments considering patient reported outcomes. We therefore performed a pharmacy based prospective, double-arm, observational cohort study with acyclovir ointment and Herpothem<sup>®</sup>.

## Methods

This study was performed in collaboration with 11 pharmacies in Germany with 103 volunteers. The study was approved by the Ethics Committee of the University of Greifswald (study protocol/ CRF).

The questionnaire used in this observational study contained the following items: age, sex, any prodrome visible, number of prodromes during former recurrences, the burden and duration of disease during former recurrences and willingness-to-pay for a treatment, which could prevent any herpes labialis outbreak.

Topical acyclovir ointments are widely used, even if they are advised to be applied numerous times a day for up to 5 days and their clinical benefit is regarded as small by only reducing the duration



of symptoms.<sup>3</sup>Herpotherm® produces a microchip controlled concentrated topical thermal impulse of an average temperature range of 51-53 °C for 4 seconds.

### Results

Both, the use of an acyclovir ointment and concentrated heat (Herpotherm®) led to a reduction of burning, itching, swelling and thus led to an improvement in the quality of life over a 7 day observation period. The Herpotherm® cohort showed a significant difference to acyclovir cohort in improvement in all items already after two days of treatment ( $p < 0.04$ ) and at each following day of observation. The mean impairment of quality of life was reduced to 50 % of start value within 3 days of treatment in the Herpotherm® cohort and not before 5 days of treatment in the acyclovir cohort. Concentrated heat prevented the outbreak of a herpes labialis in 25 % of patients of the Herpotherm® cohort (7 out of 28 patients) and in 14 % of the acyclovir cohort (3 out of 21 patients), for patients without any prodromes before treatment. Furthermore there was a statistically significant lower development of crusts in the Herpotherm® cohort, than in the acyclovir cohort ( $p < 0.01$ ). The burden and duration of disease was lower and shorter in the Herpotherm® cohort than in the acyclovir cohort.

### Discussion

In this first observational cohort study the use of Herpotherm® resulted in a measureable benefit as far as patient outcome is concerned. In contrast to acyclovir, concentrated heat showed a higher prevention rate of herpes labialis outbreak. The Herpotherm® cohort showed a reduction of impairing factors as burning, itching and swelling (which are correlating with quality of life) initially after treatment. Larger randomized, controlled studies are still necessary to verify these results.

### References

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