Silk textile with antimicrobial AEM5772/5 (DermaSilk): a pilot study with positive influence on acne vulgaris on the back


OBJECTIVE
The aim of this study is to evaluate the efficacy of the use of T-shirts made of pure knitted silk fibroin ennobled with non-migrating antimicrobial (DermaSilk®) in the treatment of acne vulgaris on the back.

MATERIALS AND METHODS:
14 patients with acne vulgaris papulopustulosa on the back.
Inclusion criterion was the presence of mild to moderate acne papulopustulosa lesions on the back without topical or systemic treatment over the minimum of the past 6 months.
Exclusion criteria were any concomitant systemic or topical treatments of acne and the use of oral contraceptive pills.

Everyone received two Dermasilk T-Shirts.
All participants were advised to wear the shirts every night for six consecutive weeks.

Clinical control visits were held every 2 weeks.
Photographic documentation was performed at baseline and at the end of week 6.
Standardized questionnaires were filled in for evaluation of the patients’ personal experience concerning the fabric, its influence on their everyday life, and its influence on their social contacts.

RESULTS
Ten patients finished the study. Four of fourteen patients were not compliant and lost to follow-up.

MAIN OBJECTIVE (CLINICAL OUTCOME OF THE ACNE LESIONS ON THE BACK)
70% of patients showed a statistically significant improvement ($P = 0.0196$) of the skin condition on their back represented by reduction in the number of acne lesions without any concomitant treatment.

SECONDARY ENDPOINTS (PERSONAL IMPRESSION, SEVERITY OF SUFFERING AND INFLUENCE ON SOCIAL LIFE)
The personal assessment of the clinical acne status showed improvement in 80% of patients; 20% realized no change.
Concerning their social life, 70% reported less disturbance by acne in social contacts with others, and 30% reported no change.
With regard to the severity of suffering, 50% of the patients stated they were less bothered by acne lesions than before, 40% stated no change, and 10% reported an increase in disturbance even though they did not clearly state why.
Impact of Dermasilk on acne vulgaris on the back

CONCLUSIONS

“Wearing Dermasilk every night for a 6-week period without any concomitant medication – neither topical nor systemic – showed a significant reduction in acne lesions on the backs of 10 patients”.

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