

Silver-coated textiles in the therapy of atopic eczema.

Gauger A.

Klinik und Poliklinik für Dermatologie und Allergologie am Biederstein, Technische Universität München, Deutschland. agauger@gmx.de

Atopic skin is mainly determined by a disrupted skin barrier, resulting in a higher susceptibility to external irritants in affected and nonaffected skin. Apart from many other irritant and allergic influences, skin colonization with *Staphylococcus aureus* is one of the major factors triggering and maintaining atopic eczema (AE). Adequate textile protection with low irritant potential can be helpful in reducing the exposure to exogenous trigger factors.

Until now, cotton fabrics have been the state of the art of recommended textiles for patients with AE. The combination of antimicrobial therapy with compatible textiles in terms of biofunctionality is a promising innovative approach. The antibacterial effect of silver-coated textiles on *S. aureus* colonization has been demonstrated in an open side-to-side comparison. Silver-coated textiles were able to reduce *S. aureus* density significantly after 2 days of wearing, lasting until the end of treatment (day 7) and even 1 week after removal of the textiles.

In addition, there was a significant difference in *S. aureus* density comparing silver-coated with cotton textiles. In addition, the clinical efficacy and functionality of silver-coated textiles in generalized AE have been examined in a multicenter, double-blind, placebo-controlled trial.

They were able to improve objective and subjective symptoms of AE significantly within 2 weeks, showing a good wearing comfort and functionality comparable to cotton without measurable side effects. These therapeutic effects led to a significantly lower impairment of quality of life, already after 2 weeks.

Therefore, beside a potent antibacterial activity in vivo, silver-coated textiles demonstrate a high efficacy in reducing the clinical severity of AE showing a wearing comfort comparable to cotton.