



Poster Session - Dermatology Allergy

861 - Use of silk fabric in the management of atopic dermatitis: preliminary results

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Background: Skin of children with AD is easily irritated by the contact with aggressive fibres, particularly synthetic and woollen clothes. Parents are educated on the use of cotton clothes for their children with AD and special cotton clothes for AD children have been made, for example in Germany. However cotton may also present a roughness that may irritate the skin. Silk, on the contrary, has a perfectly smooth fibre, non-irritant for the skin; a recent study (Sugihara A et al. Exp Biol Med 2000) has reported that a silk-film skin-dressing enhances collagen synthesis, reduces oedema and scarring due to inflammatory responses, and promotes epithelization.

Objectives: The aim of our study was to evaluate the effectiveness of a special silk fabric in the management and skin care of young children with AD with acute lesions.

Methods: 46 children (mean age 2 years) affected by AD in acute phase were enrolled: 31 received the silk clothes (group A); the other 15 were tested as a control group (group B) and treated only with topical moisturising therapy. Parents were asked to dress their children with silk clothes all day long for the whole week after clinical examination. These silk fabrics have antibacterial properties too thanks to a treatment with AEGIS AEM/5772/5 that prevents bacterial growth and survival; the fabric is made exclusively of fibroin and was certified free of sericin (a protein that can sensitize) before the beginning of the study. Each child was evaluated for the severity of the disease by using the SCORAD index as well as the local score of an area covered by the silk clothes and the local score of an area not covered as control. All the patients were reassessed 7 days after the initial examination.

Results: At the end of the study, a significant decrease in the severity of AD was observed in the children treated with the silk clothes (mean SCORAD decrease from 43 to 30; $P=0.003$) while the control group showed no improvement. The mean local score of the silk covered area improved significantly (from 32 to 18.6; $P=0.001$) compared to the local score of the uncovered area (from 31 to 26; $P=0.112$).

Conclusions: The use of special silk clothes may be useful in the management and skin care of children with AD.



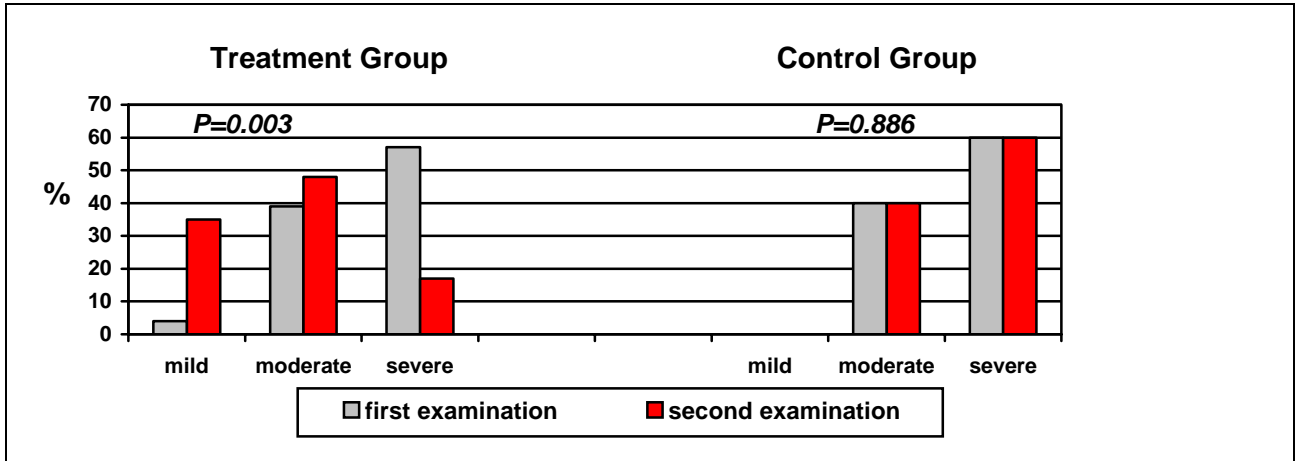
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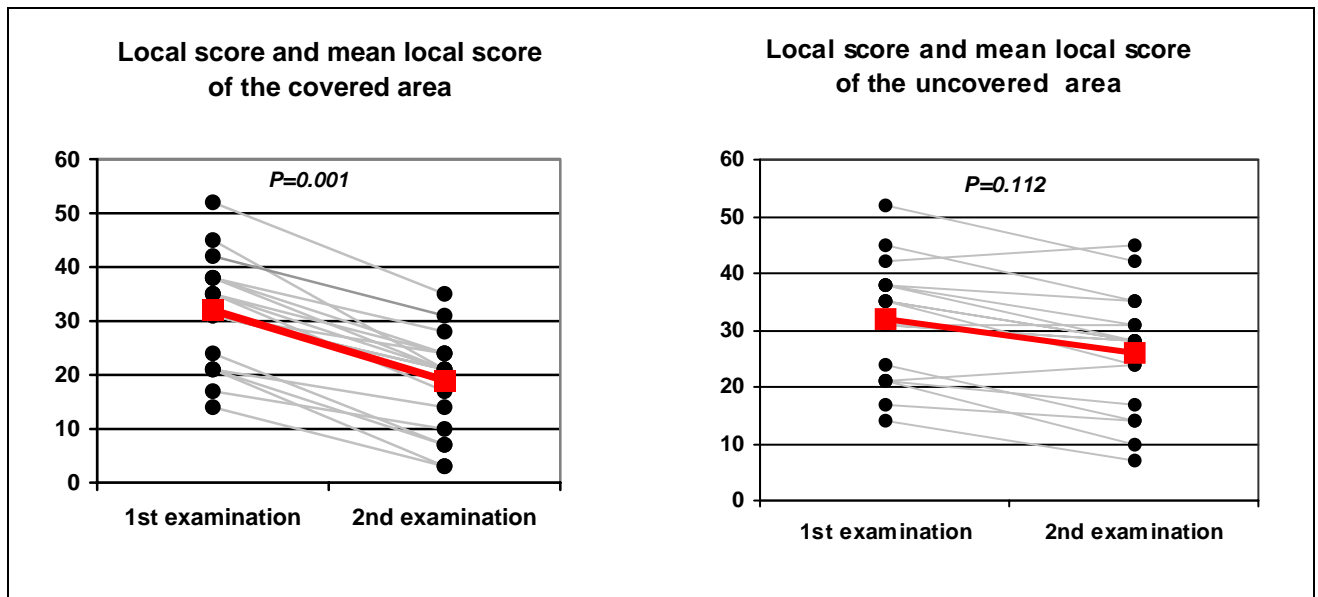
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Improvement of AD with SCORAD index



Improvement of local Scores



| | Variation of local Scores | | | |
|-----------------------|---------------------------|----------|----------|------------------|
| | Worsening | Stable | Improved | Greatly Improved |
| Covered area | 0 (0%) | 0 (0%) | 11 (61%) | 7 (39%) |
| Uncovered area | 2 (11%) | 10 (55%) | 3 (17%) | 3 (17%) |