

**A new barrier glove is as efficient as
a potent topical steroid
in the treatment of mild to
moderate severe chronic hand eczema**

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Aims of the study

- Evaluation of the efficacy of a new barrier glove made of Uretex (MICROAIR BARRIER FABRIC®) in the treatment of **mild to moderate** severe hand eczema (HE) in comparison to standard therapy with the potent corticosteroid ointment diflucortolone valerate (Nerisona® Ointment)
- In the glove group: Evaluation of the benefit due to additionally worn Dermasilk® glove under the barrier glove on one hand.
- Evaluation of DQoL, comfort of and problems with the barrier glove

Study design & methods

- prospective, controlled, standardised,
- randomised: - corticosteroid vs barrier glove 8 h a day
 - in glove group: Dermasilk® on R / L hand
 - emollient for both groups: Locobase® Repair
- stratified: gender, handedness, type and severity of HE
- evaluator-blinded, non-inferiority study
- Study duration: 3 wks
- Controls: weekly

- General severity assessment: modified **SCORAD**
- Comparat. severity assessm. right and left hands: **HECSI**
- Bacterial cultures taken with cotton swabs:
 - at baseline, if positive at all visits

- DQoL

SCORAD, Dermatology. 1993;186(1):23

HECSI, Held E, Contact Dermatitis 2005, 152; 302

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Classifications of HE

- **HE Severity**
 - Mild: SCORAD between 21 – 50
 - Moderate: SCORAD between 51 - 80
- **HE type**
 - toxic-irritative
 - atopic
 - contact-allergic
- according to the case history, clinical presentation
- Results of SPT, APT and patch testing with European Standard Series and additional series as needed
- total IgE- and specific IgE levels to prick test positive allergens.

Equally distribution of patients in both treatment groups

Randomiser®

n total= 67 Stratification criteria		Treatment group	
		Nerisona® Ointment	Microair Barrier® Glove
		Count	Count
Gender	Male	16	16
	Female	18	17
Handedness	Left-handed	2	2
	Right hander	32	31
Type of hand eczema	Irritative	17	17
	Atopic	13	13
	Contact-allergic	4	3
Severity	Mild HE	21	24
	Moderate HE	13	9

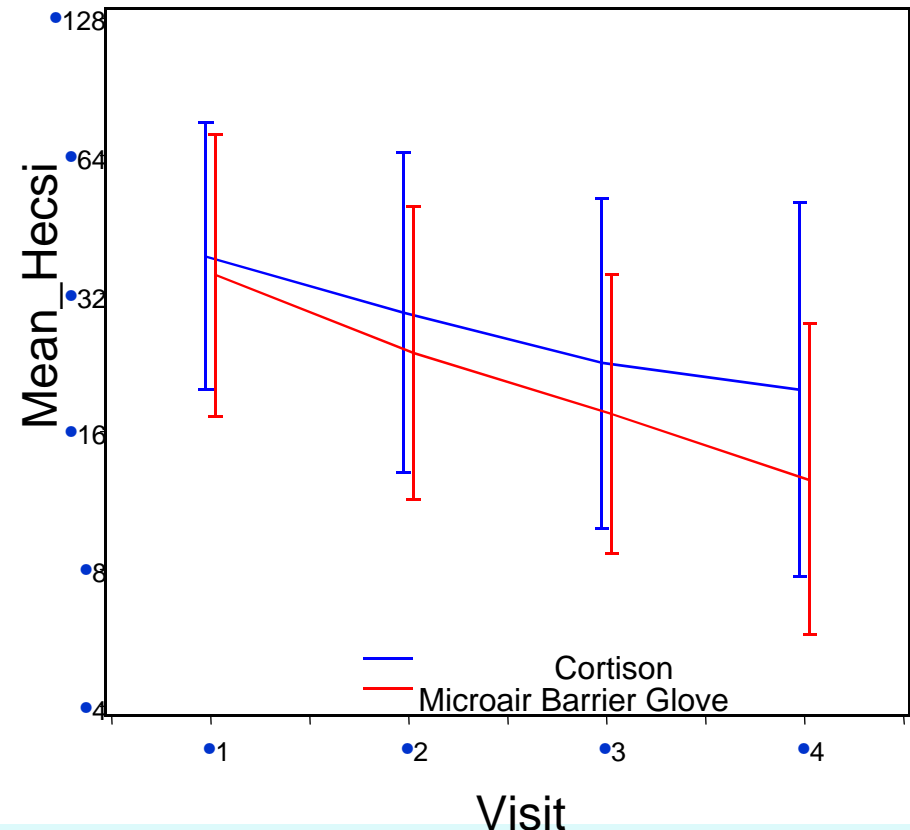
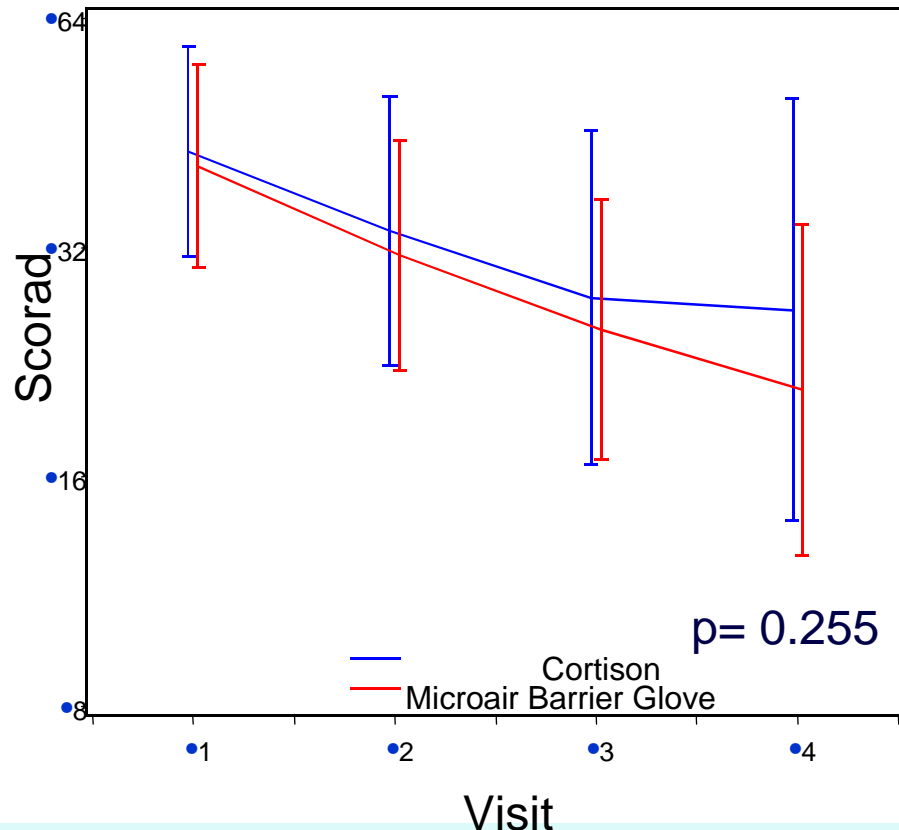
34

33

Scores in both groups at all visits

n corticosteroid = 33

n barrier glove = 32

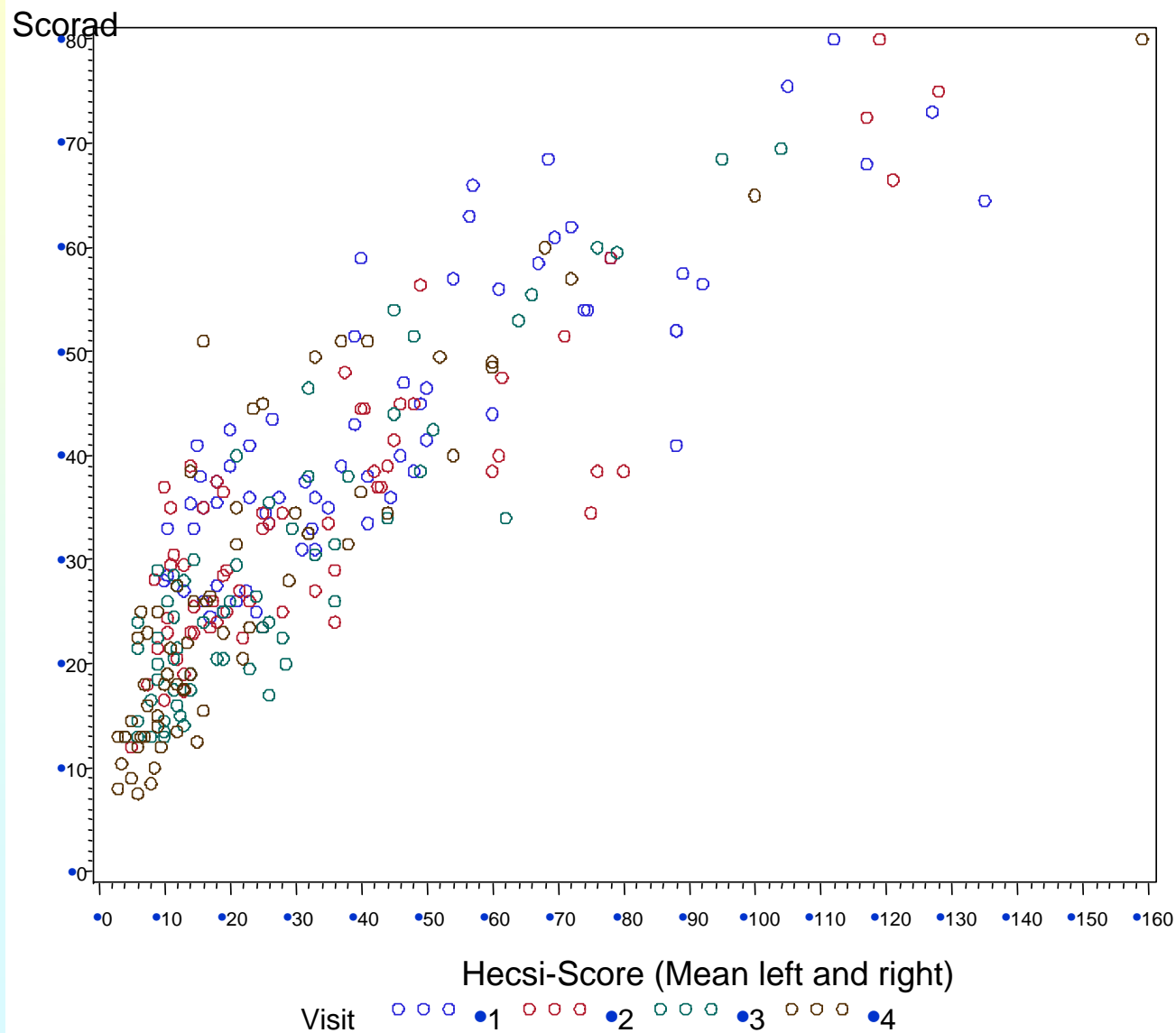


Mean rel. difference in SCORAD

Corticosteroid: - 34,08 %

Microair Barrier® Glove: - 43,24 %

Correlation of both scores

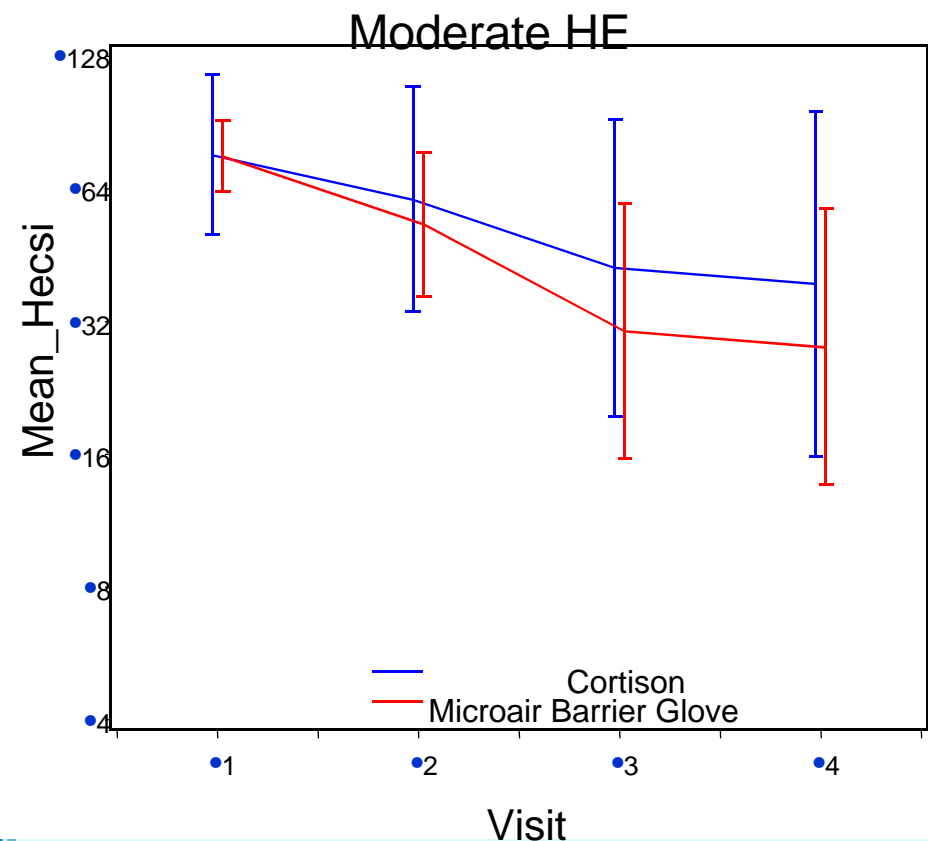
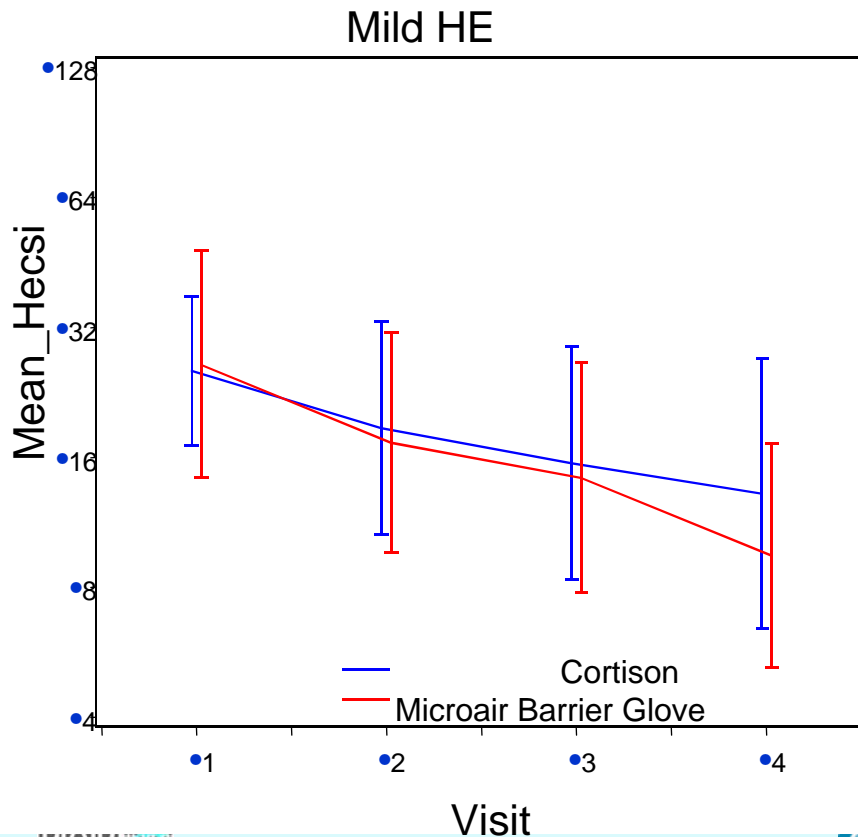


Scores according severity of HE

mild ↔ moderate

n total = 43
n corticosteroid = 20
n barrier glove = 23

n total = 22
n corticosteroid = 13
n barrier glove = 9

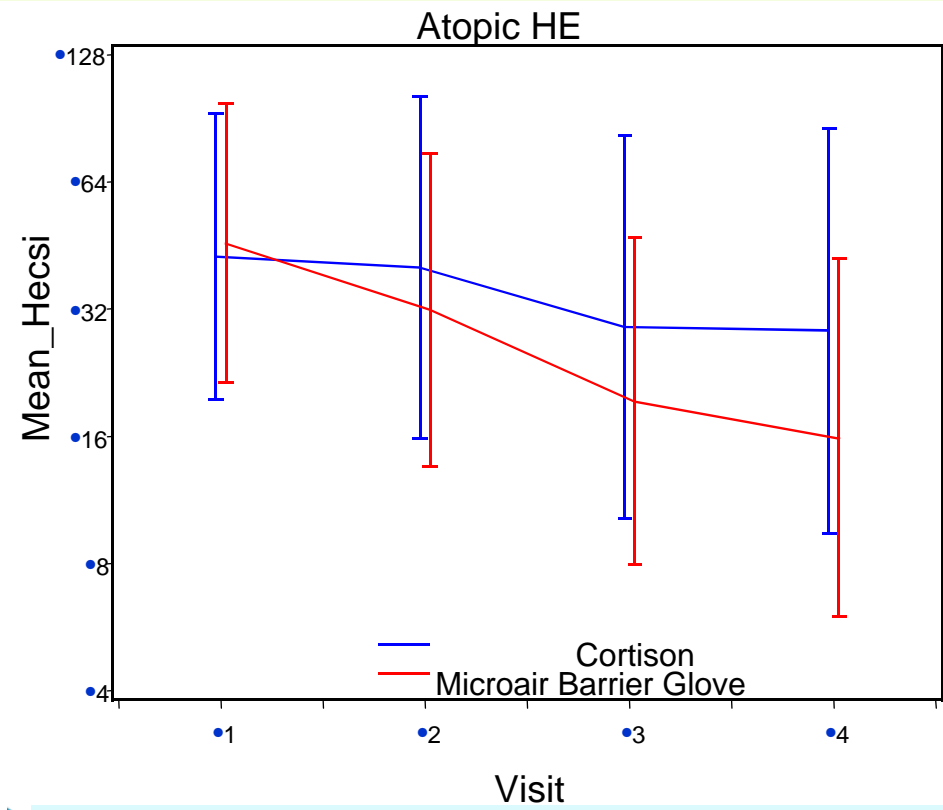
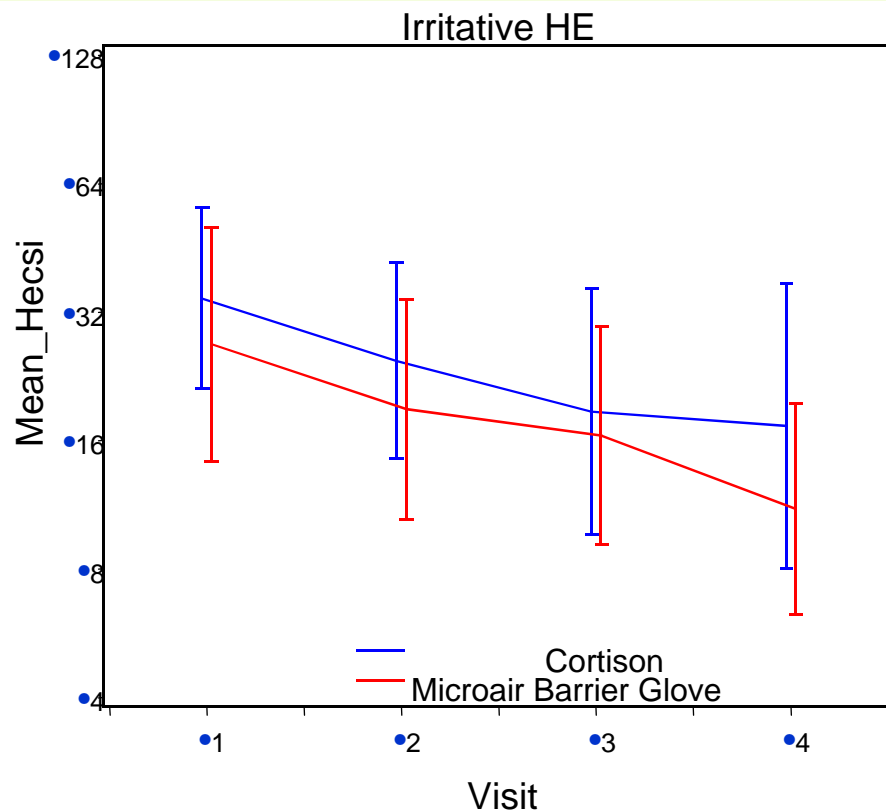


Scores according HE type

irritative ↔ atopic

n total = 34
n corticosteroid = 17
n barrier glove = 17

total = 26
n corticosteroid = 13
n barrier glove = 13



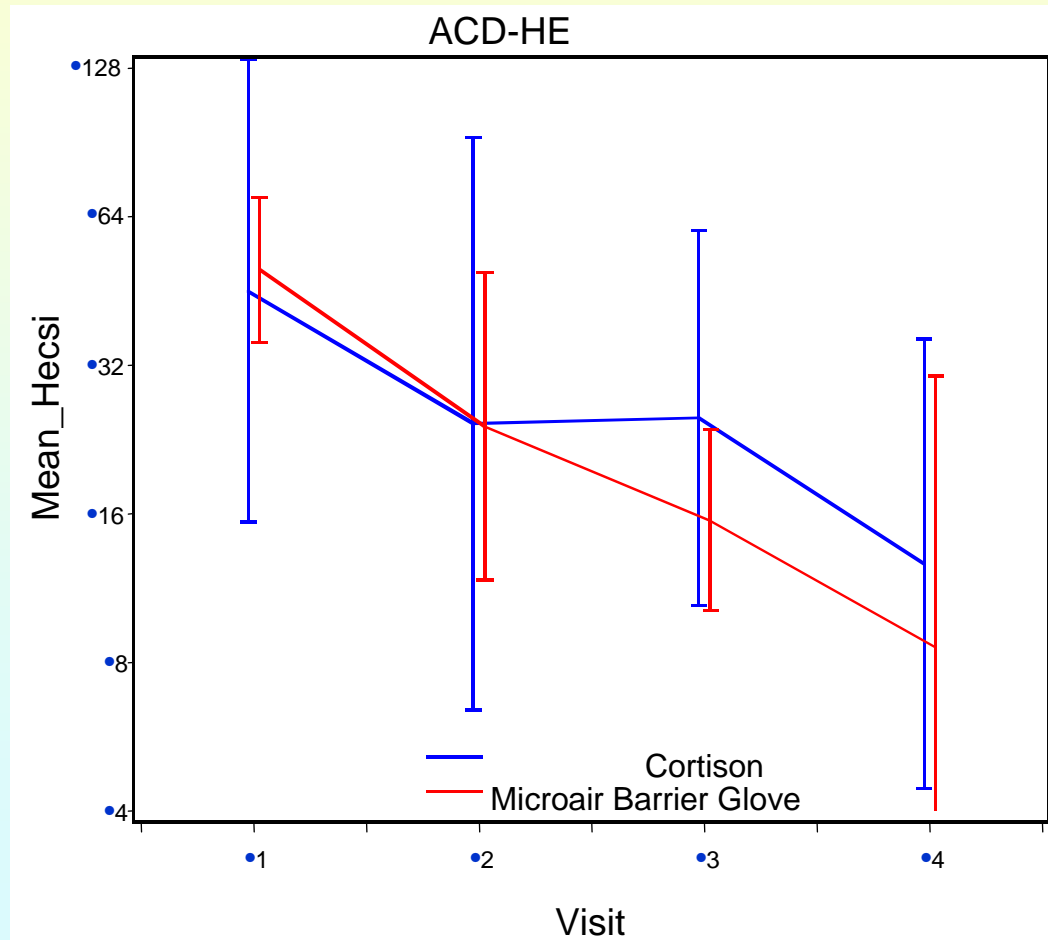
Scores according type of HE

HE due to ACD

n total = 7

n corticosteroid = 4

n barrier glove = 3



Staphylococcus aureus (SA) data

n total pat.=65 SA neg = 44 Cor.=22 Glove=22
 Both H SA + = 15
 One H SA + = 6
 All SA positive hands = 36

	Ds=Dermasilk	WH=working hand			NWH=not working hand			
	Total pat.	Both H SA +	One H SA +	All SA + hands	All Ds WH	All Ds NWH	Ds WH SA+	Ds NWH SA+
Nerisona® Ointment	33	8	3	19	n.r.	n.r.	n.r.	n.r.
Microair Barrier® G	32	7	3	17	19	14	10	7

WH \leftrightarrow NWH in Ds-SA (+) hands

Barrier glove treated pat= 32

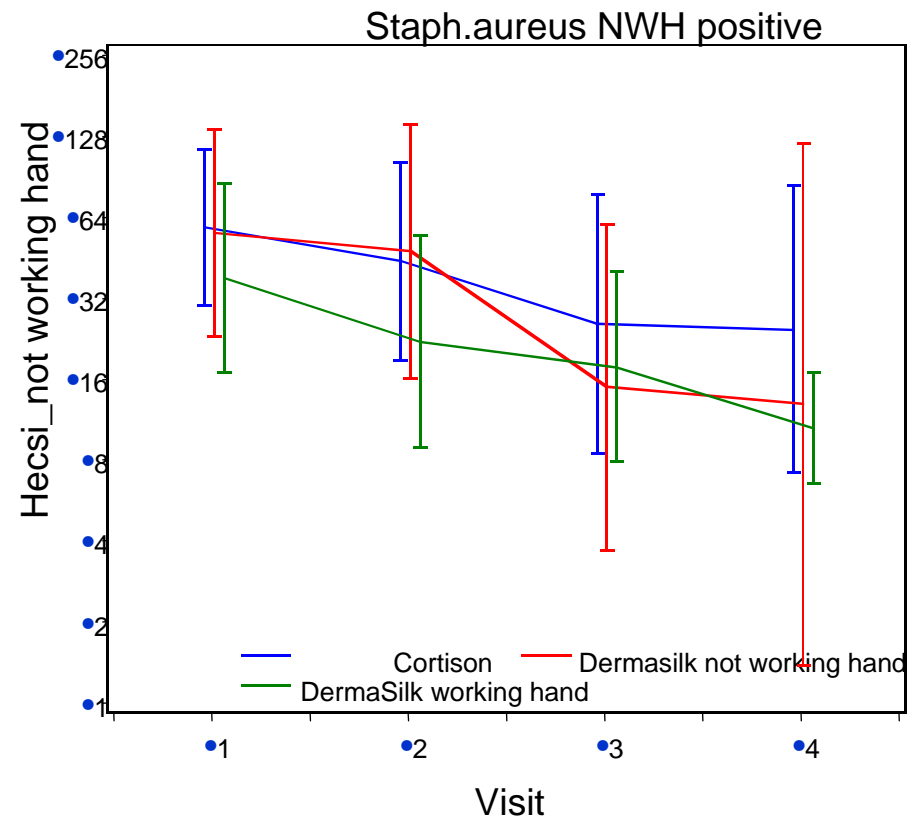
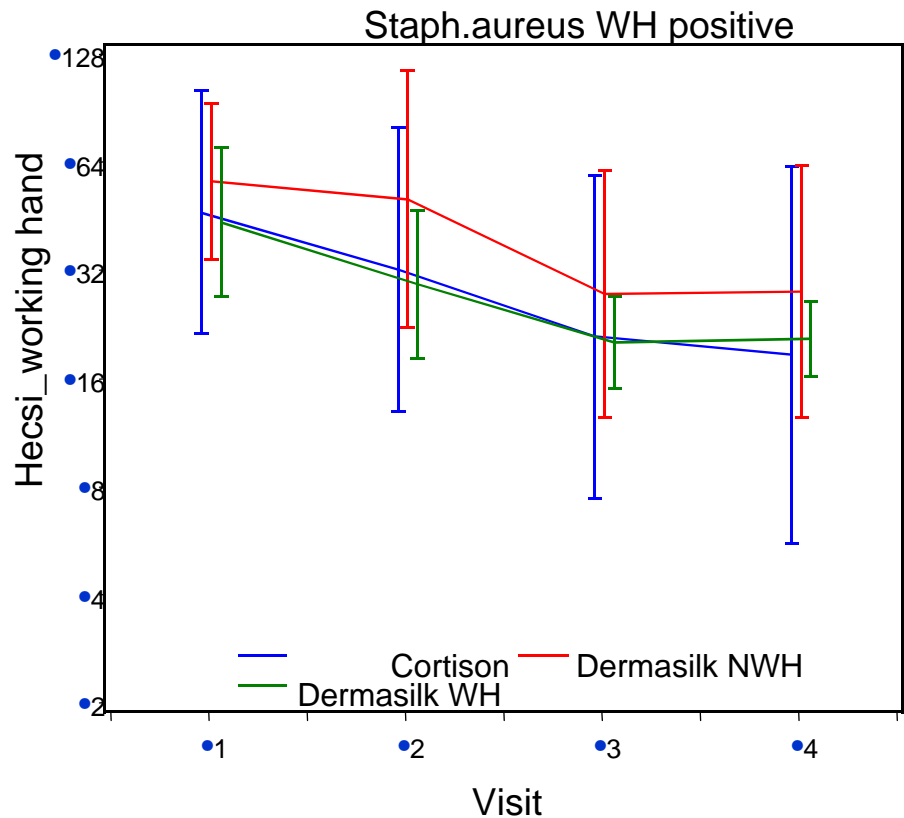
All SA (+) hands = 17 (10 pat.) 19(12)

All hands=64

All SA (-) hands=47 (25 pat.) 45(25)

All Ds-WH= 19 Ds-WH-SA (+) =10

All Ds-NWH= 14 Ds-NWH-SA (+)= 7



Comfort and problems with Microair® Barrier glove

	Comfort				Problems			
	Visit				Visit			
Frequency	2	3	4	Total	2	3	4	Total
1+2 / no	26	26	25	77	20	23	27	70
3+4 / yes	5	5	6	16	11	8	4	23
Total	31	31	31	93	31	31	31	93

Summary

- The Microair® Barrier glove is as effective as Nerisona® Ointment in the treatment of mild to moderate HE
- It is effective in all 3 types of HE
- The effect is best for ACD type > atopic > irritative
- Additionally wearing of Dermasilk® gloves may fasten the recovery of HE in SA (+) cases:
in SA (+) NWH >> in SA (+) WH
- In 80% of the patients, barrier glove was well accepted
- Problems with the glove decrease with the study duration
- It might be combined with steroid ointment for additive effects

Thank you for your attention

Aknowledgements



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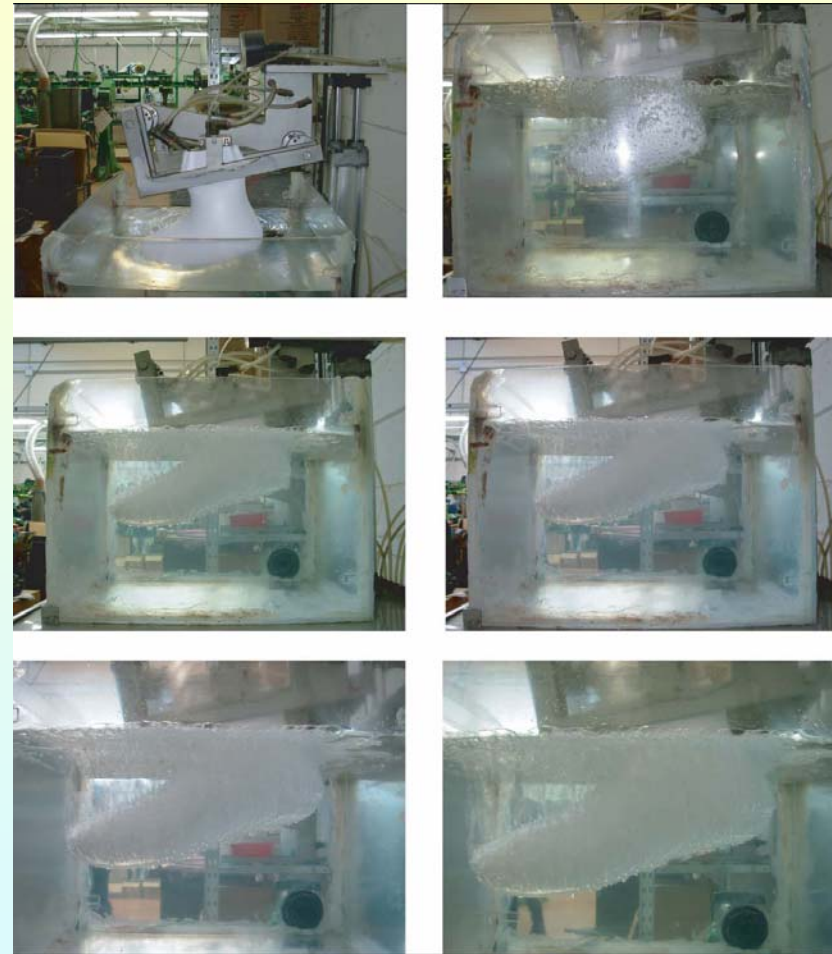
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Material

- Uretex:
 - consists of 3 layers,
 - two external layers: knitted polyester microfibre,
 - central layer: microporous film (= 3 microns).
- very lightweight, elastic, waterproof and breathable
- sterilisation at 115°C for 45 minutes



Wicking Test on boots