Table SII. *Controlled studies of the use of wet wrap therapy (WWT) with emollients only or in combination with (diluted) topical corticosteroids (TCS).*

Study	Objective	Design	Study population	AD definition and outcome measurement	Duration	Treatment	Outcome	Side-effects	Follow-up after end of treatment.	Comments
Janmohamed et al. 2014 (26)	WWT with diluted corticosteroids in comparison with emollients alone.	Randomized, controlled, double-blind study	39 children. 0.5–10 years	Severe AD (AD defined by H&R) AD severity defined by objective SCORAD	4 weeks: Week 1: WWT (24 h) whole body Week 2–4: WWT (24 h) for 4 out of 7 days on lesions only.	TCS group: Body: 1:3 MF 0.1% Face: 1:19 MF 0.1% or 1:1 1% pimecrolimus (as open therapy) Conv. group: emollients only beneath wet wraps Inner layer re-wetted every 2–3 h (not night)	4 dropouts in the emollient group Significant greater decrease in SCORAD in TCS group	Folliculitis: 10 in TCS group vs. 2 in emollient group Sec. infection in eczema: 2 in emollient group Wounding from facemask: 3 in emollient groups vs. 2 in TCS Temporary suppression of HPA axis: 3 in TCS group	No follow-up	
Schnopp et al. 2002 (30)	Comparing the effect of a steroid (MF 0.1%)-con-taining and a steroid-free (vehicle) preparation of WWT	Randomized, controlled, double-blinded, left–right study	20 children 2–17 years	Exacerbated AD (AD defined by H&R) AD severity: local SCORAD Secondary measurement: TEWL	5 days.	5 days with WWT TD with either MF 0.1% (not diluted) or emollient No treatment during night	The improvement in the MF group was significantly better than emollients only ($p < 0.01$) TEWL measurements improved in both study arms without reaching statistical significance	No information on side effects	No follow-up.	No systemic treatment with corticosteroids or AB, or TCS 7 days prior to start No information on re-wetting.
Devillers et al. 2002 (31)	To evaluate a standardized treatment, using wet-wrap dressings with diluted corticosteroids, in patients with refractory AD	Retrospective, controlled left–right study week 1 After week 1: Uncontrolled study	14 children (6 months–10 years) and 12 adults (18–61 years)	Refractory AD (AD defined by H&R, UK and Sampson criteria) Severity measured by objective SCORAD	Average 17 weeks (11 to 41 weeks)	Week 1: Left–right study with WWT OD with 1:10 vs. 1:4 diluted 0.05% FP in adults and 1:20 vs. 1:10 diluted 0.05% FP in children. Whole body application Week 2: 4 days with OD 'diluted' FP on lesions only. Followed by 3 days of emollients only (no WWT) Week 3 ->: WWT of a maximum of 5 days weekly WWT: Minimum 12 h daily treatment. Rewetted every 2–3 h	Outcome left–right study (week 1): On day 4/5 a side difference was observed in 1 child and 4 adults in favor of the less diluted FP. No comments whether it was a significant difference At day 6–9 significant decrease in objective SCORAD (uncontrolled). No results from follow-up period (after week 1).	During follow-up period (after week 1): 5 had exacerbation of AD, 3 had temporary decrease in serum-cortisone, 1 had 'prolonged suppressed HPA-axis' and striae, 9 had infections.	No follow-up	Various AD definitions used No reports when and why WWT was stopped No long-term results
Wolkerstorfer et al. 2000 (33)	To investigate the influence of different CS dilutions on the efficacy and HPA-suppression in children with severe refractory AD having WWT	Group 1: Uncontrolled study Group 2: Controlled left–right study Group 3: Controlled study	31 children, 5 months–13 years Group 1: 18 children Group 2: 5 children Group 3: 8 children	Severe AD (AD defined by Sampson and UK criteria) AD severity measured by objective SCORAD	2 weeks	Group 1: 1:2 diluted FP+WWT OD during 2 weeks Group 2: Left–right study of 1:10, 1:4 or 1:2 dilutions of FP OD+WWT for 1 week. 2nd week OD 1:10 dilution only Group 3: 8 children. 2 children respectively with emollient only, 1:20, 1:10 or 1:4 dilution of FP on the whole body +WWT OD for 2 weeks WWT 24 h daily and rewetted every second hour	Group 1: After 2 weeks significant decrease in SCORAD in 17/18 children. Group 2: No significant difference between the different dilutions after week 1 (1:10 vs. 1:4, 1:4 vs. 1:2 etc.). Group 3: Week 1: Only minor improvements when emollient only, great improvements regardless FP dilutions, tendency to dose-response relationship.	Group 1: serum cortisol not significant decreased after 2 weeks, 3/18 had temporary lower serum cortisol levels after 2 weeks Group 2: No HPA-suppression Group 3: Increased HPA-suppression, measured by s-cortisol, but not urinary cortisol/creatinine ratio, with greater amount of applied TCS. Other side-effects reported: Folliculitis, upper resp. tract infections, herpes simplex infection, itching, diarrhea, abdominal pain, balanitis, furunculosis	No follow-up	

AD: atopic dermatitis, conv.: conventional treatment; AB: antibiotics; SCORAD: scoring atopic dermatitis (53, 54); SASSAD: The six area, six sign atopic dermatitis severity score (51); H&R: Hanifin and Rajka AD criteria (58); HC: hydrocortisone; MF: mometasone furoate; FP: flucasone propionate; OD: once daily; TD: twice daily; HPA: hypothalamic-pituitary-adrenocortical; TEWL: transepidermal water loss; UK criteria: UK working party AD criteria (59); Sampson criteria: Sampson AD criteria (60).