cision rate in Korea is steeply decreasing[5]. Therefore, Korean dermatologists should always be aware that functional impairment could be caused by MGLS, as in our case. Thus, we described a rare and instructive Korean case of MGLS with circumferential balanopreputial adhesion.

CONFLICTS OF INTEREST

The authors have nothing to disclose.

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Amount of Consumed Medicines as a Severity Index for Chronic Inflammatory Skin Disorders

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Dear Editor:

In chronic inflammatory skin disorders that show repeated cycles of improvement and aggravation, it is important to understand the severity of the disease. Since chronic diseases require long-term treatment, it is critical to determine the first-line treatment, maintenance treatment, and prevention of recurrence according to disease severity. Atopic dermatitis (AD) and psoriasis are common chronic inflammatory diseases, and there are various tools for the measurement of their severity such as the SCORing Atopic Dermatitis, eczema area and severity index (EASI) or psoriasis area and severity index[1,2]. These severity indexes are mostly scored based on clinical findings by doctors or subjective items assessed by the patient. However, the ratings can differ according to the attending doctor or the patient's individual threshold and a somewhat more objective index is required. Management of chronic inflammatory dermatitis, including the type and amount of medication, is determined by the severity of the disease. This study was conducted to determine whether the prescribed amount of oral medications or topical agents could be used as a severity index in AD patients.

A randomized, open, non-comparative clinical study was conducted at the Department of Dermatology, The

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Table 1. Mean baseline and re-evaluation values

Parameter	Baseline	Re-evaluation	*p*-value
VAS pruritis	5.29±2.40	3.60±2.46	0.00009595*
VAS sleep disturbance	3.37±2.66	1.97±2.55	0.00009595*
TEWL	28.32±12.10	23.78±8.02	0.0401*
EASI score	11.13±5.57	9.21±9.00	0.02602*
Topical agents (gram)	67.71±85.83	54.55±57.38	0.47
Oral antihistamines (tablets)	127.20±94.45	123.66±89.91	0.23
Oral steroids (Eq. Pd)	75.36±187.88	77.98±199.51	-

Values are presented as mean±standard deviation. VAS: visual analogue scales, TEWL: transepidermal water loss, EASI: eczema area and severity index, Eq. Pd: equivalent dose of prednisolone. *Statistically significant difference compared to baselineaccording to the Wilcoxon signed-rank test ($p<0.5$).

Catholic University of Korea, Incheon St. Mary's Hospital (Incheon, Korea) and Kangnam Sacred Heart Hospital (Seoul, Korea) between February 2016 and January 2017. Main eligibility criteria included age over 4 years; mild to moderate AD as diagnosed by criteria in the Korean atopic dermatitis guidelines; and an EASI score greater than 5. Evaluation was performed at three visits to the hospital on day 1, day 28±7, and day 56±7. On the first visit, the medication history for topical agents and oral medications including antihistamines and steroids during the past 2 months was recorded. Oral or injected steroids were converted to the equivalent dose of prednisolone. Antihistamines were recorded in numbers of tablets, or by volume for liquid medication. Topical agents were calculated as total amount in grams. Disease severity was also evaluated. Visual analogue scales (VAS) for pruritus and sleep disturbance were surveyed[3], EASI score was estimated, and trans epidermal water loss (TEWL) was measured using a Tewameter TM 210 (Courage-Khazaha, Koln, Germany) from both sites below the cubital fossa. On the second and third visits all of the above parameters were evaluated again. On the last visit medications used for treatment of AD during the preceding 8 weeks were recorded.

This study was approved by the Institutional Review Board of The Catholic University of Korea, Incheon St. Mary's Hospital (Incheon, Korea; IRB no. OC16HIMI0005) and all patients gave written informed consent. Of the 41 patients enrolled, 35 completed the protocol. Statistical analyses were performed using the Wilcoxon signed-rank test to compare differences between the initial and the last visit for VAS pruritis and sleep disturbance scores, EASI score, TEWL, and total amount of topical agents and oral medications. Test results that produced *p*-values <0.05 were regarded as statistically significant.

Disease severity was significantly improved after 8 weeks. VAS score for pruritus, VAS for sleep disturbance, EASI score, and TEWL value were all significantly decreased (Table 1).

The total amount of topical agents showed a similar pattern to the severity of the disease. The amount of topical agents decreased from 67.71 grams to 54.55 grams (Table 1); however, this difference was not statistically significant. The amount of oral antihistamines decreased from 127.20 to 123.66 (Table 1), but was not statistically significant. The amount of oral steroids slightly increased from 75.36 to 77.98 (Table 1).

The significant decrease in VAS score, EASI score, and TEWL indicates that the severity of AD was improved. The difference in the amount of topical agents showed a similar pattern to changes in disease severity; however systemic treatment showed no significant relationship with disease severity. Patients are usually prescribed the same dose on every visit regardless of any symptom improvements; however, more cream or ointment would be required if a skin lesion was spreading or aggravated since the same amount of topical cream would be insufficient. In conclusion, the amount of topical medication may have value as an auxiliary method to evaluate the severity of chronic inflammatory dermatitis showing cycles characterized by improvement, relapse, and exacerbation. Further studies should be conducted with a larger number of patients. In addition to AD, other types of chronic inflammatory dermatitis such as psoriasis, lichen simplex chronicus, or seborrheic dermatitis may also be studied.

CONFLICTS OF INTEREST

The authors have nothing to disclose.

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