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Inpatient treatment for severe atopic dermatitis in a Traditional Korean Medicine hospital: Introduction and retrospective chart review

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SCORAD

Summary
Objectives: Patients with atopic dermatitis increasingly seek complementary and alternative medical treatment. A number of studies have demonstrated the efficacy of herbs and acupuncture in the treatment of atopic dermatitis. Some patients with extensive disease, outpatient treatment failure, acute deterioration or highly impaired everyday functioning require inpatient care. The aim of this study was to introduce and evaluate inpatient treatments for severe atopic dermatitis patients at a Traditional Korean Medicine hospital.
Design and subjects: We performed a retrospective chart review of inpatients with severe atopic dermatitis between March 2008 and October 2011. Eligibility criteria for inclusion were: (1) a diagnosis of atopic dermatitis according to the criteria established by Hanifin and Rajka and (2) hospitalisation because of severe atopic dermatitis (objective scoring atopic dermatitis (SCORAD) score $\geq$ 40).
Main outcome measurement: The SCORAD score was assessed by trained investigators at admission and discharge.
Results: Among 37 inpatients, there were 29 patients who met the criteria. Patients received treatments including acupuncture, herbal medicine and herbal wet wrap dressings. The mean total scoring SCORAD decreased from 60.63 to 37.37 during hospitalisation. Despite the relatively small sample size, these findings were statistically significant.
Conclusion: In atopic dermatitis, Traditional Korean Medicine effectively decreased clinical disease severity. This study's weaknesses include the relatively small number of patients, some aspects of the study design, lack of follow-up assessment and lack of second measurement.

Introduction

While most cases of atopic dermatitis (AD) are effectively controlled with emollients and topical treatments in the outpatient setting, some patients with extensive disease, outpatient treatment failure, acute deterioration or highly

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impaired everyday functioning require inpatient care.[1] The aim of inpatient treatment for AD is not to provide complete clearance, but to improve the condition sufficiently to allow outpatient treatment. To date, there are few objective data about the effectiveness of inpatient treatment of AD in conventional medicine, but hospitalisation improves clinical disease symptoms in patients with AD.[1–3]

Complementary and alternative medicine (CAM) is becoming increasingly popular for the treatment of inflammatory skin diseases, especially AD,[4] since effective medical treatments for AD are limited.[5,6] At Traditional Korean Medicine (TKM) hospitals in Korea, patients receive acupuncture, herbal medicine and herbal wet wrap dressing daily during hospitalisation.

A number of randomised, controlled studies have demonstrated the efficacy of CAM in treating AD.[4,7–9] However, no studies have reported the outcomes of inpatient treatment with CAM or TKM medicine.

The aim of this study was to determine the effects of TKM hospitalisation on AD. We conducted a retrospective chart review of patients with severe AD treated at a TKM hospital. Objective and subjective scoring atopic dermatitis (SCORAD) scores were assessed at admission and discharge.

Methods

Patients

We performed a retrospective chart review of inpatients with severe AD treated in the Department of Oriental Dermatology, Kyung Hee University Hospital at Gangdong, College of Oriental Medicine, Kyung Hee University, Seoul, Republic of Korea between March 2008 and October 2011. The eligibility criteria for inclusion were: (1) diagnosis with AD according to the criteria established by Hanifin and Rajka[10] and (2) hospitalisation for severe AD (objective SCORAD score $\geq$ 40).

This study was approved by the Institutional Review Board, Kyung Hee University Hospital at Gangdong. Informed consent was obtained from all patients, or from their parents or guardians for patients under 18 years of age.

Outcome measurements

To assess the efficacy of treatments, the severity of AD was evaluated using the SCORAD score[11] (Fig. 1) on both admission and discharge day by a TKM doctor specialising in dermatology.

Treatment

Patients received treatments including acupuncture, herbal medicine and herbal wet wrap dressings. All treatments were prepared and administered by a practitioner who had completed a 6-year full-time didactic and practicum course in CAM, with further clinical and research experience in the same field for 20 years.

Acupuncture

Acupuncture needles (0.25 mm diameter and 40 mm length, Dong Bang, Gyeonggi-do, Korea) were manually inserted subcutaneously or intramuscularly. Needle retention time was 15 min. Acupuncture points included EX-HN3, LI4, LI11, TE5, ST36, SP6 and LR3 on both sides of the body. About 10 local points of acupuncture were also used on eczema lesions. Acupuncture treatment was provided twice per day during inpatient treatment.

Herbal decoction

The herbal medicine used was a decoction of plant material, including *Rehmannia glutinosa*, *Talcum*, *Glycyrrhiza glabra*, *Atractylodes chinensis*, *Plantago asiatica* L., *Gentiana scabra* Bunge, *Akebia quinata* Decaisne, *Raphanus sativus*, *Adenophora triphylla*, *Smilax china* L., *Scutellaria baicalensis* Georgi and *Angelica gigas*. This herbal formula is known to be effective for reducing erythema, pruritus and exudates in AD and has no known hepatic or renal toxicities.[12] We decocted 0—20 g of each plant material with purified water as a daily dose according to patient progress. This medication was administered three times per day, after each meal.

Herbal wet wrap dressing

Phellodendri Cortex is known to have antibacterial effects.[13] This herb (dose; 30 g) was boiled with 1000 cm^3 of purified water in a large, open pot and vacuum packed to form two packs of 120 cm^3 for each treatment. Four or five layers of gauze were hydrated sufficiently with the decoction and applied immediately to the AD lesions, and Tubifast 2-way stretch or garments (Mölnlycke Health Care, Göteborg, Sweden) were added and the dressings were worn by the patients for 20—30 min. Herbal wet wrap dressings were applied once or twice per day based on symptom severity (Fig. 2).

Concomitant medications

We allowed patients to use only emollients, lotions and ointments that do not contain steroids during hospitalisation. We requested patients not to use antihistamines, steroids or immune-suppressant treatment during hospitalisation. In the cases of patients who were using these medications prior to treatment, the TKM doctors decided whether to taper off or continue using this medication according to the patient's condition. In five cases with uncontrolled itching, we consulted with allopathic medical doctors for antihistamine treatment. In one case with severe secondary infection, we consulted with allopathic medical doctors for antibiotic treatment.

Statistical analysis

Data were analysed using Statistical Package for Social Sciences (SPSS) version 13.0 for Windows (SPSS Inc., Chicago, IL, USA). Continuous variables were characterised using mean $\pm$ SD. A paired *t*-test test was used to determine if there was a statistically significant change in the SCORAD score. Results were considered statistically significant at $p < 0.05$.