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CASE REPORTS

Our Experience With Wet-Wrap Treatment☆

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KEYWORDS
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Wet-wrap dressing;
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Abstract A wide range of treatments are currently available for severe atopic dermatitis, including systemic therapies such as ciclosporin, corticosteroids, azathioprine, methotrexate, mofetil mycophenolate, and omalizumab. In patients who can no longer take systemic drugs or who need a dose reduction, wet-wrap treatment can be an excellent option.

To date, wet wraps have mostly been used in severe cases of childhood atopic dermatitis. We report our experience with wet-wrap treatment in 5 adults with atopic dermatitis and 2 with nodular prurigo. The results were satisfactory and there were few adverse effects.

PALABRAS CLAVE
Dermatitis atópica;
Vendajes húmedos;
Corticosteroides

Vendajes húmedos: nuestra experiencia

Resumen En la actualidad disponemos de un importante arsenal terapéutico para la dermatitis atópica grave. Entre los tratamientos sistémicos cabe destacar entre otros la ciclosporina, los glucocorticoides, la azatioprina, el metotrexato, el mofetil micofenolato o el omalizumab. La terapia con vendajes húmedos oclusivos *(wet-wrap)* puede suponer una excelente alternativa en pacientes en los que se pretende evitar o reducir el uso de tratamientos sistémicos.

Hasta el momento los vendajes húmedos se han considerado como una alternativa en los casos de dermatitis atópica grave de la infancia. Aportamos nuestra experiencia en un grupo de 7 pacientes adultos, 5 de ellos con dermatitis atópica y 2 con prurigo nodular, destacando los resultados satisfactorios obtenidos, así como los escasos efectos secundarios observados.

Introduction

Atopic dermatitis (AD) is a chronic eczematous dermatosis that causes pruritus; patients have a family history of allergic disease and the lesions arise at typical sites. AD causes considerable morbidity, such as difficulty in sleep initiation and maintenance, and also has an emotional impact on patients and their families.[1,2]

There is an extensive therapeutic arsenal for the topical and systemic treatment of severe AD. The main systemic treatments include antihistamines, ciclosporin, glucocorticoids, azathioprine, methotrexate, mycophenolate mofetil,

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and omalizumab; in this context, most of these drugs must be prescribed for off-label use and have undesirable effects if treatment is continued for long periods. Wet-wrap treatment is a good alternative in patients in whom the aim is to avoid or reduce the dose of systemic treatments or their complications. To date, reports on the use of this therapy have mainly involved children, and the results have been very good, with few adverse effects; however, experience in adult patients is lacking.[3–5]

Wet-wrap treatment has been reported to be effective both in AD and in generalized dermatoses that cause pruritus, xerosis, and discomfort, such as nodular prurigo, psoriasis, and the erythrodermas.[1]

Case Descriptions

We present our experience in 7 patients (6 men and 1 woman) aged between 16 and 80 years. The diagnoses were severe AD in 5 patients and nodular prurigo in 2; the conditions were resistant to conventional treatments. Wet-wrap was used in 6 patients in monotherapy and 1 patient was also administered daily pulses of 500 mg of methylprednisolone for 3 days. In all cases, the wet-wrap treatment was performed during a hospital admission.

The product applied was a mixture of a dilute topical corticosteroid (0.05% fluticasone) and an emollient (petrolatum-cetomacrogol).[3,6] All patients were treated for 7 days, with daily changes of the bandages.

The application protocol was as follows: washing of the skin in the morning with warm water and mild soap. The dilute formulation of 0.05% fluticasone propionate, prepared in the hospital pharmacy, was then applied. The extemporaneous drug formulation consisted of 1 part of 0.05% fluticasone propionate cream in 9 parts of petrolatum with 20% cetomacrogol; the formulation was applied in the direction of hair growth. Between approximately 15 and 30 g of this formulation (depending on the body surface area treated) was applied to each patient each day.

The following step consisted of cutting the tubular bandages (cotton wool-Tubifast) to fit the arms, legs, and trunk and moistening them in warm water. After moistening, these bandages were applied as the first layer of the wet-wrap. A second layer of dry tubular bandages was then fitted over the previous layer (Fig. 1). Every 2 to 3 hours the outer bandages must be removed in order to moisten the inner bandages using a warm-water spray. The solution should not be applied at night in order to allow the patient to sleep. This whole procedure is repeated daily for 7 days. Topical calcineurin inhibitors (tacrolimus, pimecrolimus) and topical low-strength corticosteroids were used on the face.

None of the patients in our series developed any infectious skin disease (molluscum contagiosum, viral warts, impetigo, herpesvirus infection, or folliculitis) that would have required interruption of the treatment.

The result on removal of the wet-wrap was a clinical improvement of the lesions in all cases (Fig. 2), with a marked reduction of pruritus and improvement in the health-related quality of life assessed using the SCORing Atopic Dermatitis (SCORAD) index (Table 1). No adverse effects were observed except for a degree of discomfort due to the moisture of the internal bandages.

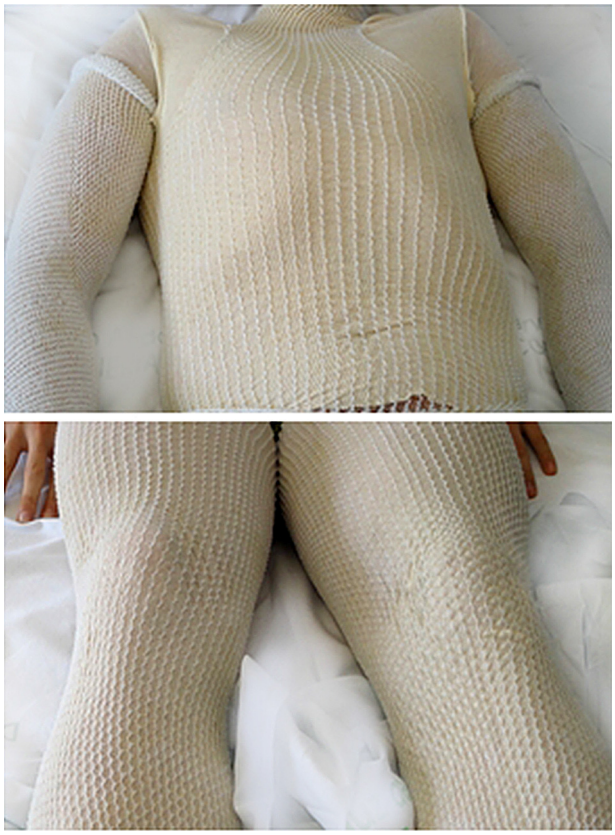

Figure 1 Detail of the double layer of bandages employed.

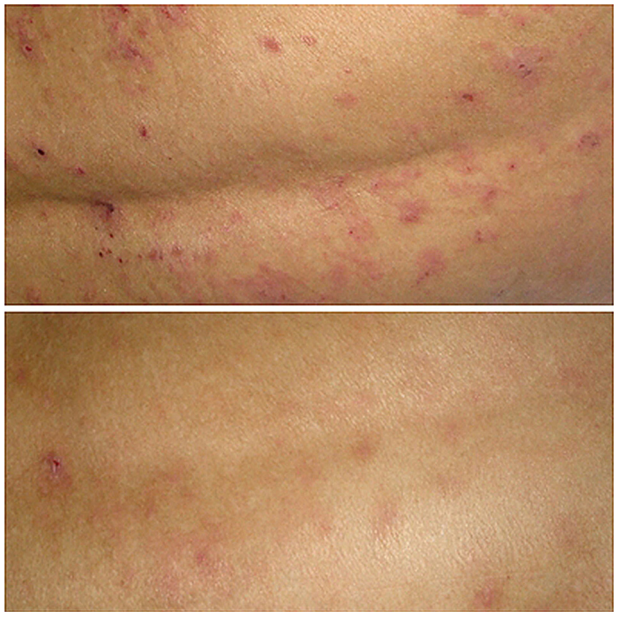

Figure 2 Clinical image of the back of patient number 6. Lesions before (top) and after (bottom) treatment.

It is important to note that no washout period was used between treatments in the cases presented in our study and the therapy was not repeated in any of the patients. It is difficult to determine the period of remission that the wet-wraps achieved in our patients as all of them subsequently received systemic treatment, which interfered with the