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Attitude of the Adult Patient With Atopic Dermatitis to the Disease and Its Treatment: The ACTIDA Study

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KEYWORDS

Atopic dermatitis;
Treatment;
Patient attitude

Abstract

Objective: To determine the attitude of adult patients with atopic dermatitis (AD) to their disease and its treatment.

Material and methods: A multicenter, cross-sectional study was performed in patients with at least 2 outbreaks of AD in the previous year.

Results: Two hundred twenty-seven dermatologists recruited 1441 analyzable patients, the majority women, with a mean of 3.6 outbreaks per year. Most of the patients (97.2%) indicated that they always or sometimes requested medical evaluation of a new outbreak. In the most recent outbreak, 72.2% had used combined therapy, regardless of the severity of the episode; 2-drug combinations were the most common. The majority of dermatologists prescribed combined therapy, most commonly a 2-drug combination for mild or minimal disease, and 3 or more drugs for moderate to very severe outbreaks.

Conclusions: Treatments used by patients for an outbreak of AD are similar to those prescribed by dermatologists in recent outbreaks.

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PALABRAS CLAVE

Dermatitis atópica;
Tratamiento;
Actitud del paciente

Actitud del paciente adulto con dermatitis atópica frente a su patología y tratamiento. Estudio ACTIDA

Resumen

Introducción y objetivos: Conocer la actitud de los pacientes adultos frente a la dermatitis atópica (DA) y su tratamiento.

Material y métodos: Estudio transversal, multicéntrico, realizado en pacientes con al menos 2 brotes en el último año.

Resultados: Doscientos veintisiete dermatólogos reclutaron 1.441 pacientes analizables, mayoritariamente mujeres con 3,6 brotes al año de media. La mayoría de los pacientes (97,2%) indicó que solicitaba, al menos ocasionalmente, asesoramiento médico ante nuevos brotes. El 72,2% recurrió a la terapia combinada (TC) en el último brote, independientemente de su intensidad, siendo las combinaciones de 2 fármacos (TC2) las más utilizadas. Los dermatólogos indicaron mayoritariamente TC, siendo la TC2 más frecuente para formas leves y casi sin enfermedad, y la TC de más de 2 fármacos en brotes moderados a muy graves.

Conclusiones: Los tratamientos empleados por los pacientes ante un brote de DA son similares a los indicados por los dermatólogos.

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Introduction

Atopic dermatitis (AD), or atopic eczema, is a recurrent chronic inflammatory skin disease that affects the quality of life of patients and their families.¹⁻³

AD is considered the most common recurrent disease in dermatology,⁴ with a worldwide prevalence that has doubled or tripled over the past 3 decades.⁵⁻⁷ Onset is usually early in life and although improvement comes with age, about 20% of adults experience persistent problems.⁸ Between 15% and 20% of children and 1% and 10% of adults in developed countries have AD.⁴ About 70% of these patients have a family history of atopy or allergic diseases.^{8,9}

The approach to management of AD differs according to age and severity. Therapy targets both symptoms during a flare-up and the prevention of new episodes.^{3,8} The education of the patient, family and others around the patient is therefore crucial if skin care habits encompassing both hygiene and diet are to be acquired and factors that trigger flare-ups identified.

The therapeutic arsenal now includes a wide range of drugs in different classes (antibiotics, antiseptics, corticosteroids, antihistamines, and immunosuppressants) with varying degrees of potency as well as types of activity.^{3,8-10} These drugs are available for prescription during periods of exacerbation or as maintenance therapies, as required.

The management of an AD flare-up depends on the overall therapeutic approach, and various studies have shown that the physician's point of view can differ from the patient's in some aspects and have an effect on therapy.^{11,12} Although the prescription of drugs by dermatologists has been studied,¹³ we know little about which treatments patients actually use during a flare-up. With time, the patient integrates the information provided by the physician together with experience acquired over

the course of disease, eventually learning to manage flare-ups. Learning affects the decision of whether to visit the dermatologist when AD worsens or to use one of the previously prescribed treatments that had been effective in bringing symptoms under control.

In this context, the ACTIDA study (denoting Attitude of the Adult Patient With Atopic Dermatitis to the Disease and Its Treatment) was conceived. The aim was to determine the attitude of adult patients with AD to their disease and its treatment by asking which medications were used during the most recent flare-up and exploring the relationship between that choice and severity of the episode. We also studied the therapeutic approach taken by the dermatologist the patient saw during the last flare-up.

Patients and Methods

This cross-sectional, multicenter study was undertaken in dermatology outpatient clinics across Spain. A total of 227 dermatologists participated. The study was approved by an independent clinical research ethics committee. Patients of both sexes with a diagnosis of AD were recruited during visits between February and September 2007. The patients were at least 18 years old and had experienced at least 2 other flare-ups in the past year. All gave their signed informed consent to participation.

The study variables (demographic, general clinical, and disease-specific information) were recorded in a data-collection notebook during a single visit. AD severity was expressed on the Investigator Global Assessment (IGA) scale¹⁴ at that time. If patients had been seen for an earlier AD flare-up, an IGA was also recorded for that episode. The pharmacologic treatments prescribed by the dermatologist during the last flare-up were recorded by type of drug and route of administration.

The patient was asked to evaluate the intensity of the last flare-up (mild, moderate, or severe) and to state the pharmacologic treatment used at that time to control symptoms (type and route of administration). The patient's attitude toward a flare-up and its effect on quality of life were also surveyed.

Statistical Analysis

Quantitative variables were summarized as mean (SD) and qualitative measures by absolute frequency and percentage. Independent qualitative variables were compared with the χ^2 test; paired variables were compared with the McNemar test if they were correlated. The cutoff for statistical significance in all tests was set at $P=.05$. Analyses were carried out with the SAS statistical package, version 9.1.3.

Results

Description of the Study Population

A total of 1552 patients attending outpatient dermatology clinics throughout Spain were included. Complete, valid

data for analysis were obtained for 1441 (92.8%) patients who met the selection criteria.

Table 1 shows demographic and clinical characteristics. The mean age was 32.5 (12.7) years. Women made up 62.6% of the sample. Over half the patients had personal or family histories of allergy or atopy. Most were residents of urban areas (70.9%), had secondary school or higher educations (81.2%), and were actively employed (61.0%).

When asked to rate the severity of the last flare-up, 56.2% said it had been moderate, 26.4% mild, and 14.7% severe. The skin areas usually affected in the last flare-up were the arms (70.9%), legs (51.7%), trunk (43.2%), face (42.7%), and neck (40.8%).

Previous AD-related visits to the dermatologist were reported by 66.9%, and 48.1% of those flare-ups were given an IGA rating of moderate at the time.

During the study visit for the current flare-up, IGA severity ratings of mild to moderate were given for 74.7% of the patients (Table 2).

Patient Attitude Toward the Last Flare-up and Medication Used

Physician treatment is reportedly always or sometimes sought during flare-ups by 97.2% of the sample. Only 50.5%

Table 1 Patient Demographic and Clinical Characteristics

	No. of Patients	Mean (SD)
Age, y	1441	32.5 (12.7)
BMI, kg/cm ²	1382	24.1 (3.4)
Age at diagnosis of AD, y	1416	15.3 (13.3)
No. of flare-ups per year	1412	3.6 (2.3)
	No. of Patients	Percentage
Women (n=1432)	896	62.6
Urban residence (n=1398)	991	70.9
Secondary school or university education (n=1367)	1110	81.2
Employed (n=1332)	812	61.0
History of allergy (n=1427)	877	61.5
Family history of allergy or atopy (n=1415)	834	58.9
Previously seen by a dermatologist for AD (n=1436)	960	66.9

Abbreviations: AD, atopic dermatitis; BMI, body mass index.

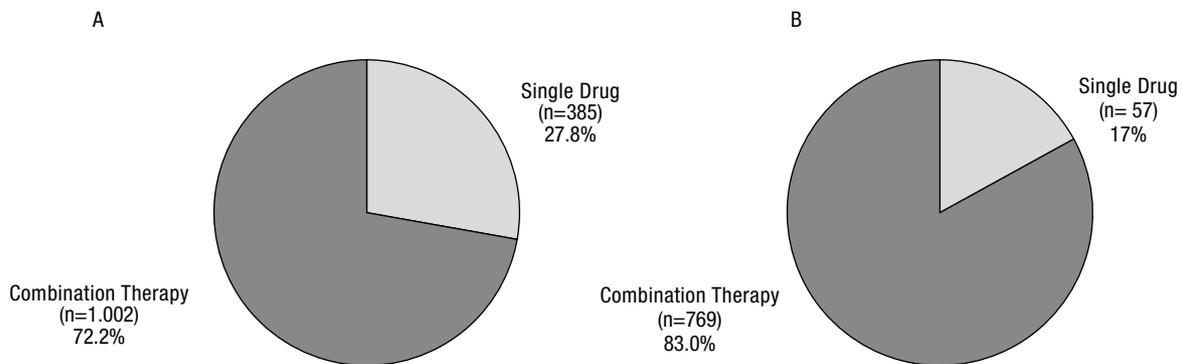
Table 2 Disease Severity at the Time of the Study Visit Expressed on the Investigator Global Assessment (IGA) Scale^a

IGA	No. of Patients = 1423	
	n	Percentage
0 Clear (no sign of inflammatory atopic dermatitis)	43	3.0
1 Almost clear (hardly perceptible erythema and infiltration/papulation)	169	11.9
2 Mild erythema and infiltration/papulation	507	35.6
3 Moderate erythema and infiltration/papulation	557	39.1
4 Severe erythema and infiltration/papulation	124	8.7
5 Severe erythema and infiltration/papulation with oozing/crusting	23	1.6

^a The IGA rating was not recorded for 18 patients.

Table 3 Patient Approach to Managing an Atopic Dermatitis Flare-up

	Always n (%)	Sometimes n (%)	Never n (%)	Total n (%)
Do you consult a physician for treatment?	637 (44.3)	760 (52.9)	40 (2.8)	1437 (100.0)
Do you ask a pharmacist to recommend a treatment?	73 (5.1)	649 (45.4)	706 (49.4)	1428 (100.0)
Do you use medications that were used during previous flare-ups?	545 (38.8)	771 (55.0)	87 (6.2)	1403 (100.0)
Do you use medications right away, at the first sign of flare symptoms?	615 (43.2)	715 (50.2)	95 (6.7)	1425 (100.0)

**Figure 1** Treatment used by patients (A) during a flare-up of atopic dermatitis and treatment prescribed by dermatologists (B). A) Percentages of the total number of patients who specified the treatment used during the last flare-up. B) Percentages of the total number of patients who visited a dermatologist during the last flare-up of atopic dermatitis and who reported what treatment was prescribed.**Table 4** Medications Used During the Last Flare-up of Atopic Dermatitis, According to Severity

	Mild (n = 363) n (%) ^a	Moderate (n = 778) n (%) ^a	Severe (n = 247) n (%) ^a	Total (n = 1382) n (%) ^a	P ^b
Single drug					
Topical	144 (39.7)	194 (25.1)	18 (7.3)	356 (25.8)	.0017
Corticosteroids	49 (13.5)	98 (12.7)	9 (3.6)	156 (11.3)	.0150
Immunosuppressants	83 (22.9)	92 (11.9)	8 (3.2)	183 (13.2)	.0559
Other	12 (3.3)	4 (0.5)	1 (0.4)	17 (1.2)	.0253
Systemic	5 (1.4)	8 (1.0)	5 (2.0)	18 (1.3)	.0006
Corticosteroids	1 (0.3)	2 (0.3)	0 (0.0)	2 (0.1)	.1216
Antihistamines	4 (1.1)	4 (0.5)	2 (0.8)	10 (0.7)	.1513
Immunosuppressants	1 (0.3)	3 (0.4)	2 (0.8)	6 (0.4)	.0397
Other	3 (0.8)	5 (0.6)	1 (0.4)	9 (0.7)	.6181
Combination therapy	n (%)^a	n (%)^a	n (%)^a	n (%)^a	P^b
Two-drug combinations	140 (38.6)	294 (38.1)	88 (35.6)	522 (37.8)	< .0001
Topical immunosuppressant + systemic antihistamine	22 (6.1)	79 (10.2)	22 (8.9)	123 (8.9)	.1835
Topical corticosteroid + systemic antihistamine	28 (7.7)	66 (8.5)	17 (6.9)	111 (8.0)	.1403
Topical corticosteroid + topical immunosuppressant	29 (8.0)	43 (5.6)	7 (2.8)	79 (5.7)	.0002
Topical antibiotic + topical corticosteroid	10 (2.8)	17 (2.2)	3 (1.2)	30 (2.2)	.1172
Topical + systemic corticosteroids	1 (0.3)	10 (1.3)	13 (5.3)	24 (1.7)	.0004
Topical immunosuppressant + systemic corticosteroid	0 (0.0)	9 (1.2)	0 (0.0)	9 (0.7)	.0300
Other combinations	47 (12.9)	55 (7.1)	22 (8.9)	124 (9.0)	< .0001
Combinations of more than 2 drugs	71 (19.6)	271 (35.1)	135 (54.7)	477 (34.5)	< .0001

^aPercentages of the total number of patients who reported information about treatment for that perceived degree of severity of the last flare-up of atopic dermatitis.

^b χ^2 test

reported consulting a pharmacist. Over 90% said they always or sometimes used the medications that had worked during earlier flare-ups; they began using the medications as soon as symptoms appeared (Table 3).

A combination of medications was used by 72.2% during the last flare-up, whereas only 27.8% used a single drug (Figure 1A).

The most frequently used single drugs were immunosuppressant or corticosteroid creams. When patients chose a combination therapy, the largest proportion of patients used 2 drugs (37.8%); the choices were usually systemic antihistamines in combination with either a corticosteroid or immunosuppressant cream. The use of more than 2 drugs was reported by 34.5% of the patients. Regardless of the severity of the last flare-up, most patients used drug combinations (Table 4).

Significant differences in the use of topical and systemic drugs in relation to flare severity were found in the group of patients using a single treatment. Creams were more

often chosen for mild flare-ups and systemic drugs were used for more severe symptoms (χ^2 test, $P < .05$). Systemic drugs were seldom chosen.

Significant differences were also seen in the group using combination therapies. Patients with moderate to severe flare-ups were the ones who most often chose to use more than 2 drugs (χ^2 test, $P < .05$).

Dermatologists' Therapeutic Approaches

Among the patients who consulted a dermatologist for treatment during the last flare-up (53.4%), 83.0% were prescribed a combination of drugs and only 17.0% a single drug (Figure 1B).

When the approach was combination therapy, more than 2 drugs were prescribed more often than only 2 drugs. The majority of dermatologists, regardless of severity expressed on the IGA scale, prescribed combinations. However, statistically significant differences (χ^2 test,

Table 5 Dermatologists' Approaches to Management, According to Investigator Global Assessment^a of Atopic Dermatitis Severity of the Last Flare-up Treated

Single-drug	0 (n = 2) n (%) ^b	1 (n = 45) n (%) ^b	2 (n = 236) n (%) ^b	3 (n = 446) n (%) ^b	4 (n = 160) n (%) ^b	5 (n = 30) n (%) ^b	P
Topical	2 (100.0)	14 (31.1)	61 (25.8)	68 (15.2)	0 (0.0)	0 (0.0)	.1478
Corticosteroids	1 (50.0)	5 (11.1)	16 (6.8)	30 (6.7)	0 (0.0)	0 (0.0)	.2121
Immunosuppressants	0 (0.0)	7 (15.6)	44 (18.6)	37 (8.3)	0 (0.0)	0 (0.0)	.0029
Other	1 (50.0)	2 (4.4)	1 (0.4)	1 (0.2)	1 (0.6)	0 (0.0)	.0052
Systemic	0 (0.0)	0 (0.0)	1 (0.4)	3 (0.7)	3 (1.9)	1 (3.3)	.0798
Corticosteroids	0 (0.0)	0 (0.0)	0 (0.0)	2 (0.4)	0 (0.0)	0 (0.0)	.6308
Antihistamines	0 (0.0)	0 (0.0)	1 (0.4)	0 (0.0)	0 (0.0)	0 (0.0)	.5385
Immunosuppressants	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	3 (1.9)	1 (3.3)	.0004
Other	0 (0.0)	1 (2.2)	0 (0.0)	1 (0.2)	0 (0.0)	0 (0.0)	.2629
Combination therapy	n (%) ^c	n (%) ^c	n (%) ^c	n (%) ^c	n (%) ^c	n (%) ^c	P
Two-drug combinations	0 (0.0)	19 (42.2)	96 (40.7)	135 (30.3)	41 (25.5)	5 (16.7)	.0009
Topical immunosuppressant + systemic antihistamine	0 (0.0)	5 (11.1)	25 (10.6)	37 (8.3)	3 (1.9)	1 (3.3)	.1584
Topical corticosteroid + systemic antihistamine	0 (0.0)	2 (4.4)	18 (7.6)	42 (9.4)	10 (6.2)	0 (0.0)	.0040
Topical corticosteroid + topical immunosuppressant	0 (0.0)	5 (11.1)	18 (7.6)	23 (5.2)	4 (2.5)	0 (0.0)	.0353
Topical antibiotic + topical corticosteroid	0 (0.0)	1 (2.2)	6 (2.5)	3 (0.7)	0 (0.0)	0 (0.0)	.1271
Topical + systemic corticosteroids	0 (0.0)	0 (0.0)	1 (0.4)	3 (0.7)	5 (3.1)	1 (3.3)	.2497
Topical immunosuppressant + systemic corticosteroid	0 (0.0)	0 (0.0)	0 (0.0)	5 (1.1)	4 (2.5)	0 (0.0)	.0372
Other combinations	0 (0.0)	6 (13.3)	28 (11.9)	20 (4.5)	13 (8.1)	3 (10.0)	.1271
Combinations of more than 2 drugs	0 (0.0)	11 (24.4)	78 (33.1)	239 (53.6)	116 (72.0)	24 (80.0)	< .0001

^a Investigator Global Assessment (IGA) scale: 0, clear (no sign of inflammatory atopic dermatitis); 1, almost clear (hardly perceptible erythema and infiltration/papulation); 2, mild erythema and infiltration/papulation; 3, moderate erythema and infiltration/papulation; 4, severe erythema and infiltration/papulation; 5, very severe erythema and infiltration/papulation with oozing/crusting.

^b Percentages of the total number of patients for whom information was available on treatment and IGA rating for the last flare-up for which a visit was made to the dermatologist.

^c χ^2 test

$P < .05$) in the manner of combining drugs were observed as follows. Two-drug combinations were usually prescribed for patients with mild flare-ups (40.7%) or almost clear skin (42.2%). More than 2 drugs were prescribed mainly for very severe (80.0%), severe (72.0%), and moderate (53.6%) flare-ups, as the number of patients treated with multiple drugs increased with AD severity (Table 5).

When patients were prescribed a single drug, it was usually an immunosuppressant or corticosteroid cream in mild cases (25.8%) or if the skin was almost clear (31.1%) (χ^2 test, $P < .05$).

Systemic medications were more often prescribed for moderate to very severe episodes, whether a single-drug or combination approach was taken (χ^2 test, $P < .05$).

Medications Used to Manage an AD Flare-up: Dermatologist vs Patient Approaches

When patient single-drug use was compared with the dermatologist's prescription of a single drug (Figure 2A) it was found that topical treatments were chosen more often by patients (15.9%) than they were prescribed by

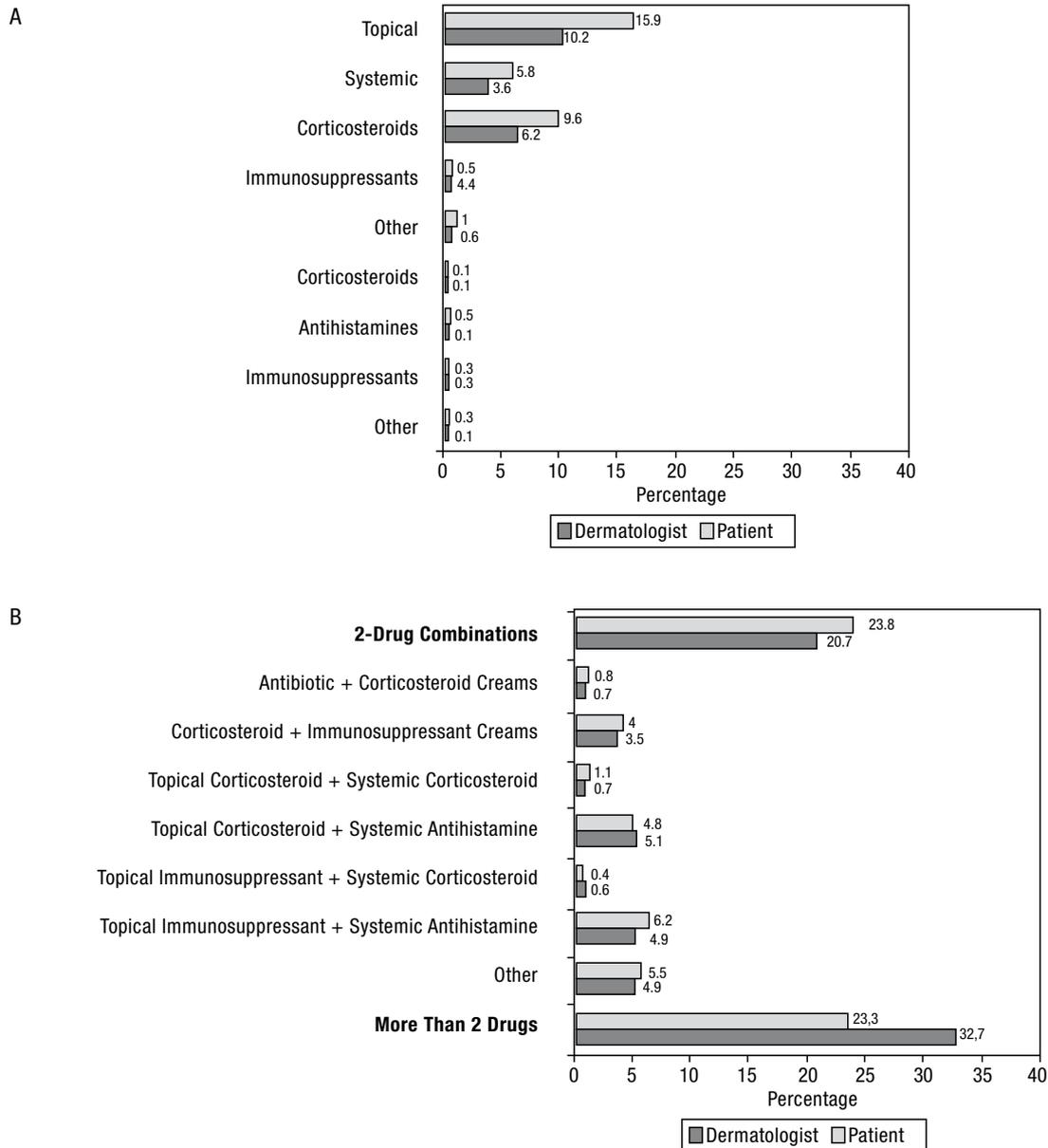


Figure 2 Treatments used to manage a flare-up: the dermatologist's prescription vs the medication used by the patient, according to whether the approach was based on a single drug (A) or a drug combination (B). Asterisks indicate statistically significant differences between the dermatologist's prescription and the patient's use (McNemar test, $P < .05$). The analysis was performed in patients seen by a dermatologist on the occasion of the last flare-up and for whom prescription information and patient use information were both available (single-drug therapy, n=941; combination therapy, n=800).

Table 6 Influence of Atopic Dermatitis on Quality of Life, According to Severity of the Last Flare-up

	Mild (n = 378) n (%) ^a	Moderate (n = 806) n (%) ^a	Severe (n = 250) n (%) ^a	Total (n = 1434) n (%) ^a	P ^b
Does atopic dermatitis have an effect on your daily life?	327 (100.0)	665 (100.0)	219 (100.0)	1211 (100.0)	< .0001
Yes, a lot	19 (5.8)	101 (15.2)	110 (50.2)	230 (19.0)	
Yes, quite a lot	25 (7.6)	109 (16.4)	45 (20.5)	179 (14.8)	
Not much	195 (59.6)	376 (56.5)	58 (26.5)	629 (51.9)	
No	88 (26.9)	79 (11.9)	6 (2.7)	173 (14.3)	
Does atopic dermatitis make you feel concerned about your appearance?	327 (100.0)	665 (100.0)	219 (100.0)	1211 (100.0)	< .0001
Yes, very	43 (13.1)	117 (17.6)	79 (36.1)	239 (19.7)	
Yes, quite concerned	69 (21.1)	189 (28.4)	59 (26.9)	317 (26.2)	
Not very	123 (37.6)	266 (40.0)	64 (29.2)	453 (37.4)	
No	92 (28.1)	93 (14.0)	17 (7.8)	202 (16.7)	
Does atopic dermatitis affect your relations with other people (making you feel marginalized, different, etc)?	327 (100.0)	665 (100.0)	219 (100.0)	1211 (100.0)	< .0001
Yes, a lot	9 (2.8)	30 (4.5)	43 (19.6)	82 (6.8)	
Yes, quite a lot	15 (4.6)	55 (8.3)	29 (13.2)	99 (8.2)	
Not much	110 (33.6)	275 (41.4)	93 (42.5)	478 (39.5)	
No	193 (59.0)	305 (45.9)	54 (24.7)	552 (45.6)	
How much does atopic dermatitis affect your productivity at work or school?	327 (100.0)	665 (100.0)	219 (100.0)	1211 (100.0)	< .0001
A lot	8 (2.4)	40 (6.0)	58 (26.5)	106 (8.8)	
Quite a lot	15 (4.6)	64 (9.6)	35 (16.0)	114 (9.4)	
Not much	120 (36.7)	308 (46.3)	93 (42.5)	521 (43.0)	
Not at all	184 (56.3)	253 (38.0)	33 (15.1)	470 (38.8)	

^aPercentages are of the total number of patients at each level of patient-reported severity of the last flare-up.

^b χ^2 test

physicians (10.2%). Patients also chose immunosuppressant creams more often than corticosteroid creams (McNemar test, $P < .05$).

When combinations were used, patients chose 2 drugs more often (23.8%) than dermatologists (20.7%) (Figure 2B). The opposite pattern was seen for combinations of more than 2 drugs: 23.3% of patients and 32.7% of dermatologists took this approach (McNemar test, $P < .05$).

Impact of AD on Patients' Quality of Life

Patients' perceived their quality of life to have worsened significantly during AD flare-ups of greater severity (χ^2 test, $P < .05$). More severely affected patients reported a greater impact on daily life and were more concerned about their appearance than were other patients (Table 6).

Discussion

Most of the patients with AD in this study were women who experienced more than 3 flare-ups yearly. Severity in the last episode had been mild to moderate. Patients reported that they usually visited their doctor during flare-ups and that as soon as symptoms appeared they started using the drugs that had worked well during previous episodes. The recurrent chronic course of AD, and the fact that onset is usually in childhood, are factors that contribute to patients'

learning to manage flare-ups according to intensity and to their use of effective treatments previously prescribed by their doctors.

Consistent with published reports of how AD affects patients' quality of life,^{1,2} our informants reported that severe flare-ups made a greater impact on their daily life and led them to feel greater concern for their appearance.

In spite of the large number of AD treatments of varying degrees of potency that are currently available, we know that creams, particularly corticosteroids of different concentrations, are the most commonly used to manage mild or moderate flare-ups, alone or in combination with other drugs.^{10,13,15} In addition to these creams, topical immunosuppressants have come to play a strong role in the treatment of AD in recent years, whether as a first choice or as an alternative for patients in whom corticosteroid use is inadvisable or contraindicated.^{16,17}

In this study, the topical treatments used to manage AD were generally also the ones dermatologists prescribed most often, among patients using either a single drug or a combination approach, although the majority of dermatologists chose a combination of topical and systemic drugs to manage flare-ups in keeping with severity. Systemic drugs were reserved for more severe episodes. An international survey comparing AD management by dermatologists in Japan, the United States, and the United Kingdom showed that the Japanese physicians treated the disease more vigorously,

using more corticosteroids and antibiotics and prescribing systemic drugs for more severe flare-ups.¹³ The therapeutic approach that emerged from our survey was similar to that of the Japanese dermatologists. Our findings show that Spanish dermatologists are prescribing therapy for AD flare-ups in line with both national and international consensus guidelines.^{9-13,15}

Our study also allowed us to compare the management approaches of patients to that of dermatologists by studying the answers of each group in two thirds of the sample. Patients used creams more often, both as single treatments or in combination with another drug, whereas the dermatologists more often prescribed combinations of more than 2 agents.

In spite of the design limitations of this study, which was based on data collection during a single visit and subject to recall bias given that the patient was asked about the last flare-up, we were able to see that patients combined pharmacologic treatments to manage AD in a manner that was unrelated to flare severity.

Although small differences in patients' use and dermatologists' prescription of medications were noted, we found that patients generally used an approach that was similar to the one a dermatologist had prescribed in a recent flare-up, confirming earlier findings that patients and dermatologists have similar attitudes toward the use of drugs to manage AD.¹¹

Conflict of Interest

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