

Epidemiologic characteristics and burden of psoriasis: A multicenter, cross-sectional study

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Abstract

Background

Although psoriasis burden and treatment have been well characterized in developed countries, there are scarce in-depth epidemiological studies in Latin American countries.

Objectives

To describe the sociodemographic and clinical features and the economic burden of psoriasis among children and adult patients from Colombia.

Methods

This cross-sectional study included patients from dermatology private practice offices, health provider institutions and hospitals in seven Colombian cities. We collected data on disease distribution, weight, height, body mass index, waist-hip ratio, disease severity, therapy, personal history of comorbidities, and direct costs. Multiple logistic regression analyses were conducted to assess the associations between severity scales and sociodemographic and clinical variables.

Results

Two-hundred-three patients (43.8% women, 56.2% men) with an age range between 7 to 89 years old were included. The main subtype was psoriasis vulgaris and mean age of diagnosis was 37.1 years. The most common comorbidities were obesity, hypertension, psoriatic arthritis, dyslipidemia and diabetes. Women had a significant increased odds of presenting with psoriatic arthritis. Body-mass-index and hypertension were significantly associated with a higher psoriasis severity, whereas being female and non-obese was associated with a lower risk. A third of the patients had a family history of psoriasis and sleeping disorders. Forty-one percent of participants

either had no income or had an income below 224 US dollars per month and >20% of their income was spent on their disease.

Conclusions

This study is supported by robust scientific data and contributes to understanding the burden of psoriasis in Latin America. This study adds well-supported data through an in-depth clinical and economical characterization of Colombian children and adult patients with psoriasis and shows the high impact and burden of the disease on patients and their families.

MAIN MESSAGES

- ◆ Most epidemiologic psoriasis studies in Latin America have been carried out through surveys or retrospective local data and, to our best knowledge, in-depth psoriasis studies in Latin America are scarce.
- ◆ The burden of psoriasis has been well characterized in developed countries but much less in Latin-American middle-income settings.
- ◆ A cross-sectional multicenter study was performed to obtain data related to disease distribution, weight, height, body mass index, waist and hip measurement, and disease severity (through four scales). Fitzpatrick's skin phototype, family history of psoriasis, previous treatments, and personal history of comorbidities were also gathered.
- ◆ The limitation of our study was its cross-sectional design which is more prone to selection bias and does not allow us to draw directional causal inferences or to measure psoriasis severity fluctuations over time.
- ◆ This study adds well-supported data through an in-depth clinical and economical characterization of Colombian children and adult patients with psoriasis and shows the high impact and burden of the disease on patients and their families.

INTRODUCTION

Psoriasis is a chronic and recurrent immune-mediated disease that affects 0.09 to 11% of the world's population [1–5]. Its prevalence may vary by age, gender, ethnicity and geographic area, being more frequently reported in Nordic countries than tropical areas, and a very low prevalence has been reported in Japanese, aboriginal Australians and Indians from South America [3]. Despite demographics, psoriasis global incidence raised over the last three decades [5,6]. Most epidemiologic psoriasis studies in developing countries have been carried out through surveys or retrospective local data and, to our best knowledge, in-depth psoriasis studies in Latin America are scarce or lacking. Reports from some Latin American countries have described that the disease accounts for 2 to 6%, 2.03%, and 1.6 to 4.8% of dermatological consultations in Colombia [7,8], Chile [9] and Brazil [10], respectively.

Psoriasis can affect people of any age, but studies suggest a bimodal onset with one peak occurring in early adults and the second occurring after the age of 57 [5]. Patients with an early onset of psoriasis seem to have more severe disease and a more frequent family history [11]. In addition, epidemiological studies have shown that patients with psoriasis frequently present concomitantly with other immunological diseases such as Crohn's disease and metabolic syndrome, leading to atherosclerosis and coronary heart disease [12].

Regarding severity, studies in European and US populations estimate that about 80% of patients have mild psoriasis, whereas moderate and severe psoriasis is present in 5 to 13% and 9% of patients, respectively [13]. Although the main symptoms of the disease include itching, burning sensations and bleeding, significant ethno-racial differences have been reported regarding psoriasis subtypes and disease perceptions [14,15].

Current psoriasis treatments are diverse and their effectiveness depends on the extent of the disease. Previous reports have shown that psoriasis is an economic burden for any healthcare system as it involves continuous topical or systemic treatments, psychological counseling, addressing comorbidities and follow-ups [16]. Disease management also requires non-reimbursed consultations, topical therapies, emollients, and/or transportation.

Considering that the burden of psoriasis has been well characterized in developed countries but much less in Latin-American middle-income settings [17], the aim of this multicenter study was to describe important socio-demographic and clinical features and the economic burden of psoriasis in Colombian patients to fill the gaps in knowledge and contribute to well-supported regional and worldwide disease data.

METHODS

This is a cross-sectional study that included patients from dermatology private practice offices, health provider institutions and hospitals from seven Colombian cities. The inclusion criteria were Colombian patients over seven years of age or foreigners residing for more than 15 years in the country, with a diagnosis of psoriasis. Early and late onset of psoriasis was classified as appearing before or after the age of 30 [9,18]. Patients with any mental deficit were excluded. The recruitment period was 24 months (from March 2018 to March 2020). Convenience sampling was performed, and consecutive patients who attended the dermatological consultation of private practice offices, health provider institutions and hospitals from seven Colombian cities were included. Written informed consent was obtained from all adult patients and parents or guardians of children with psoriasis.

Data collection was performed in a step-wise approach: First, the collection of sociodemographic and economic features, and second, a complete physical examination was recorded and performed by a trained dermatologist or by a dermatology resident that confirmed psoriasis diagnosis. Data collection was carried out through a printed questionnaire and included demographics such as age, marital status, gender, education level, living place, health insurance, socio-economic classification and social security type. In addition, the economic impact of the cost of illness was included.

Data related to disease distribution, weight, height, body mass index, waist and hip measurement, disease severity through the Psoriasis-Area-and-Severity-Index (PASI), Physician-Global-Assessment (PGA), Body-Surface-Area (BSA), Nail-Psoriasis-Severity-Index (NAPSI), Fitzpatrick's skin phototype, familiar history of psoriasis, previous treatments, and personal history of comorbidities, were also gathered.

The Psoriasis-Area-and-Severity-Index is the most widely used tool for measuring skin involvement in psoriasis and has been considered the "gold standard" for clinical trials. However, some regulatory entities, such as the US Food and Drug Administration (FDA), usually require the inclusion of a physician's global assessment (PGA) of psoriasis as a co-primary efficacy endpoint [19]. The Psoriasis-Area-and-Severity-Index was categorized as mild (<10) or moderate to severe (≥ 10). On the other hand, the Physician-Global-Assessment was scored as 0 (none) to 6 (severe). A Physician-Global-Assessment of 1 to 2, 3 to 4, and 5 to 6 corresponded to mild, moderate, and severe psoriasis, respectively.

A Body-Surface-Area of less than 5%, 5 to 10%, or over 10% was designated as mild, moderate, and severe, respectively. The body mass index was classified as less than 20.0 (under/low-normal weight), 20.0 to 24.9 (medium/high-normal weight), 25.0 to 29.9 (overweight), and equal or over 30 (obese).

The World Health Organization currently recognizes that a waist circumference from 80 to 87.9 centimeters (cm) in women and 94 to 101.9 cm in men and a waist-hip ratio greater than 0.8

in women and 0.9 in men correlates with an overweight diagnosis through the body mass index [20]. In this study, body weight and height were measured to the nearest 0.1 kilogram (kg) and 0.1 cm. Waist circumference was measured to the nearest 0.1 cm at the level of the iliac crest at minimal respiration. Waist circumference ≤ 88 cm in women and ≤ 102 cm in men were considered normal, whereas >88 cm in women and >102 cm in men were considered to have a high waist circumference. A waist-hip ratio greater than 0.80 (women) and 0.90 (men), corresponded to overweight, as described elsewhere [20,21].

The patients' social security classification was defined according to the Colombian general social security health system, which includes two main affiliation regimens: the contributory (that includes employees and independent workers) and the subsidized regime (poorest people). There is also a special regime, including the military force, the police, all schoolteachers, official university employees and the Colombian national petroleum company (Ecopetrol).

The socio-economic classification was performed through a surrogate marker for individual or family income according to the National Administrative Department of Statistics (DANE) [22], which has been based on public services payment related to housing type and urban or rural environment. This classification is stratified as: low to low (1), low (2), medium to low (3), medium (4), medium to high (5), and high [6,22].

The cost of illness for patients and their families was determined according to disease costs. Data on economic dependence (patients with no income living at home with parents/family), monthly income, and monthly investment in psoriasis were all included in the analysis.

For data collection, we designed a data collection instrument with 101 questions. Trained dermatologists and dermatology residents completed the printed questionnaire for all patients. All data were entered into an Excel database (version 19 Microsoft Office® 2019).

This study was approved by the Ethics Committees of the IPS Universitaria, Universidad de Antioquia and of the Hospital San Vicente Fundacion at Medellin, Colombia, and was carried out in accordance with the Declaration of Helsinki. All patients gave written consent, and, in children, consent was obtained from their parents or legal guardians.

A univariate analysis was performed to describe variable frequency. For continuous variables that fulfilled the assumption of normality (Kolmogorov-Smirnov), the mean was used as a measure of central tendency and the standard deviation as a measure of dispersion. For non normal variables, the median was used. Absolute and relative frequencies and percentages were used for qualitative variables. The Chi-square test was used to establish the relationship between early/late diagnosis and gender, family history of psoriasis and comorbidities. Multiple logistic regression analyses were conducted to assess the associations between severity scales and sociodemographic and clinical variables. Multivariable logistic regression model

Table 1. Sociodemographic characteristics of Colombian psoriasis patients.

Variable	n = 203
Age, years	49.7 (SD: 16.6)
Gender	n (%)
Women	89 (43.8%)
Men	114 (56.2%)
Skin phototype	
No data	2 (1%)
I	1 (0.5%)
II	15 (7.4%)
III	108 (53.2%)
IV	65 (32%)
V	12 (5.9%)
VI	0 (0%)
Marital status	
No data	2 (1%)
Single	62 (30.5%)
Married	76 (37.4%)
Cohabitant	35 (17.2%)
Divorced	15 (7.4%)
Widowed	13 (6.4%)
Highest educational level completed¹	
No data	1 (0.5%)
None	5 (2.5%)
Elementary school	51 (25.1%)
Middle/High school	59 (29.1%)
Technician	39 (19.2%)
College	34 (16.7%)
Postgraduate	14 (6.9%)
Social security classification²	
No data	1 (0.5%)
None	3 (1.5%)
Contributory	117 (57.6%)
Subsidized	60 (29.6%)
Special regime	15 (7.4%)
Private	2 (1%)

SD: Standard deviation.

¹Referred by the patient.²Colombian general social security health system.

Source: Table created by the authors according to the results obtained.

outcomes were presented as odds ratios with their respective 95% confidence interval. The significance level was specified at 0.05 for all tests. For data processing, the SPSS (Statistical Package for Social Sciences) version 27 was used (IBM Corp. Released 2020. IBM SPSS Statistics for Windows, Version 27.0. Armonk, NY: IBM Corp).

RESULTS

A total of 203 patients from seven main Colombian cities were included. The main sociodemographic characteristics are presented in Table 1. The population was mostly men (56.1%)

between 7 and 89 years old, with main skin phototypes from II to IV (93.9%). Most were married (37.4%), and only 43% of patients reported having a technical/professional degree. Regarding health insurance, most patients (57.6%) belonged to the contributory regime. In respect to the economic characterization, 81% of the patients had low incomes (strata 1-3) (Table 1).

The mean age of psoriasis diagnosis was 37.1 years old (range 4 to 80 years, standard deviation 17.3 years), with no significant differences ($p=0.64$) found regarding an early or late diagnosis of the disease according to gender.

About 16.7% of patients reported alcohol consumption, and smoking and drug abuse was found in 13.3% and 6.4%, respectively. The most common comorbidities were obesity (28.1%), hypertension (24.1%), psoriatic arthritis (13.3%), dyslipidemia (13.3%), diabetes (10.9%), thyroid disease (6.9%), and fatty liver disease (4.9%). Family history of psoriasis was present in 32% of patients and the most frequent psychiatric disorders were depression (8.4%) and anxiety (5.9%). In addition, sleeping disorders were found in 29.6% of the population.

Gender did not influence family history of psoriasis ($p=0.21$), psoriasis subtype ($p=0.10$), or comorbidities such as diabetes ($p=0.41$), hypertension ($p=0.37$), dyslipidemia ($p=0.58$), obesity ($p=0.75$), thyroid disease ($p=0.07$), or fatty liver disease ($p=0.73$). However, women had an increased risk of presenting with psoriatic arthritis ($p=0.04$).

Around 44.1% of men and 87.3% of women had an increased waist circumference and 55.1% of men and 65.9% of women had a high waist-hip ratio ($p=0.32$). The latter correlated with 63.7% of women and 69.8% of overweight/obese individuals according to the body mass index.

The variables that were found to be significantly associated with psoriasis severity included having a high body mass index (odds ratio 1.22, 95% confidence interval 1.04 to 1.44, $p=0.01$), and hypertension (238, 3.44 to 1654, $p=0.04$) whereas being female (0.16, 0.03 to 0.94, $p=0.04$) and non-obese (0.12, 0.02 to 0.95, $p=0.04$) was related with a lower severity risk.

Main treatments were phototherapy (52.2%), methotrexate (47.3%), biologic (18.2%), topical corticosteroids alone (10.3%) and corticosteroid + salicylic acid + vitamin D analogues (9.4%). Previous treatments and economic features are depicted in tables 2 and 3, respectively.

Psoriasis vulgaris was the main disease subtype (43.3%), followed by the scalp (11.3%) and nails (9.2%) subtypes. The most frequent signs in nail disease were pitting alone (12.8%), onycholysis alone (3.6%), leukonychia alone (2.6%) and nail hyperkeratosis alone (1.5%), but the majority of patients had more than one concomitant nail sign (79.5%).

The median of Body-Surface-Area and absolute Psoriasis-Area-and-Severity-Index was 4.7 and 4.1, respectively. Mild, moderate and severe Body-Surface-Area scores were found in 114 (56%), 44 (21%) and 44 (21%) of patients, respectively.

Table 2. Treatment received by Colombian psoriasis patients.

Variable	n = 203
Main topical treatments	n (%)
None	83 (40.9%)
Salicylic acid alone	10 (4.9%)
Topical corticosteroids alone	21 (10.3%)
Topical vitamin D analogs alone	4 (2%)
Corticosteroid + salicylic acid	10 (4.9%)
Corticosteroid + salicylic acid + vitamin D analogues	19 (9.4%)
Other combined topical treatments	56 (27.6%)
Systemic treatments	n (%)
Phototherapy	106 (52.2%)
Azathioprine	2 (1.0%)
Cyclosporine	4 (2%)
Methotrexate	96 (47.3%)
Mycophenolate mofetil	7 (3.4%)
Biologic therapy	37 (18.2%)
Oral retinoids	4 (2%)

Source: Prepared by the authors of this study.

According to Psoriasis-Area-and-Severity-Index absolute scores, 171 (85%) had mild disease and 31 (15%) had moderate to severe disease. A total of 44 patients (22.9%) had a Physician-Global-Assessment of zero, whereas mild, moderate and severe disease PGA scores were found in 66%, 32% and 2% of patients, respectively.

Economic dependence was found in the majority of patients (84.2%). Expenditures to manage psoriasis in mild disease were mainly below 50 US dollars per month (80.3%) (Table 3), and

Table 3. Economic features in psoriasis patients.

Variable	n = 203
Economic dependence	n (%)
No data	2 (1%)
Yes	171 (84.2%)
No	30 (14.8%)
Monthly income, CCMMG	
No data	1 (0.5%)
No income	51 (25.1%)
< 1 (Low-low strata)	29 (14.3%)
1 – 2 (Low strata)	50 (24.6%)
3 – 5 (Medium-medium/high strata)	42 (20.7%)
6 – 10 (High strata)	22 (10.8%)
> 10 (High strata)	8 (3.9%)
Monthly investment in disease, USD¹	
No data	1 (0.5%)
0 – 25	107 (52.7%)
26 – 50	55 (27.1%)
51 – 150	28 (13.8%)
> 151	12 (5.9%)

¹USD: United States dollars per month
CCMMG: Current Colombian monthly minimum wage.
CCMMG is equivalent to approximately 224 US dollars.
Source: Prepared by the authors of this study.

81.2% of patients with mild disease belonged to the lower strata. However, economic dependence ($p=0.26$) and economic strata ($p=0.84$) were not associated with disease severity.

DISCUSSION

The current study demonstrated major economic and health status impairments in a representative psoriasis population in Colombia. Our study included mainly adult patients (98%) from seven Colombian cities who were assessed by experienced dermatologists that assured, not only an in-depth characterization of the disease, but also other sociodemographic characteristics as well as previous treatments and the actual cost of illness for patients and their families.

Psoriasis affects men and women equally [5,23,24], as has been found in our study, but also it has been recognized as a disorder of adulthood, a finding that was also confirmed in this study. In this respect, the mean age of assessed patients was 50.1 years. This finding is similar to what has been found in the United States (US) [24], European countries [24–27], and in another study performed in our country [28], in other retrospective reports from two centers in Colombia [8,29], and in other Latin American countries such as Venezuela [30], and Ecuador [31]. Nevertheless, our findings differ from a survey-based study in Chile in which the mean age of their population was younger [9]. These differences could be related either to genetic heterogeneity or sampling methods and criteria which could also explain the later disease onset compared to other populations [9,18].

An important and previously described [32] finding in our study is that most patients were married or had a partner. This could be related to a later disease onset as it has been described in patients who develop psoriasis later in life and may have already

made a choice to marry or to have children [33]. The age of psoriasis onset in our patients might also have influenced the less vulnerability of our patients to alcohol abuse, smoking, and the use of illicit drugs as our findings differ from studies in other populations in which a linkage of such habits with psoriasis has been reported [34,35].

Regarding the level of education, most patients had a low level of education as well as a low income, which could be explained by the inclusion of an important number of patients with subsidized and contributory social security. However, this finding warrants further assessment in a causality study design as this cross-sectional study cannot determine if a lower socioeconomic status is a causal factor for psoriasis, or if patients with psoriasis spend more money and time on therapies that affect household income as has been described by Hawro et al. [36].

A positive family history of psoriasis has been considered a risk factor for the development of the disease. In our study, 31.8% of patients reported having relatives with psoriasis, which is similar to previous reports [37]. However, higher percentages have been reported in Italy, Chile and Spain [9,18,38], due to genetic background differences or combined data from more than one relative affected and/or the addition of affected second and third-degree relatives.

Psoriasis has been described as an independent risk factor for cardiovascular disease and other comorbidities such as psoriatic arthritis [39]. In our study, obesity, high blood pressure, and psoriatic arthritis were among the most prevalent as noted in other studies [9,40]. Interestingly, we did not find a previously reported positive association between psoriasis and variables related to metabolic syndrome in women [41], but we did find a significant association with psoriatic arthritis in women. Such a result can be explained by the higher frequency of the symmetrical polyarthritis subtype in our population as females seem more commonly affected with this clinical form of arthritis than males [42].

Non-dermatologic diseases have been reported frequently among psoriasis patients [24,39,43,44]. In fact, an increased risk of diabetes, cardiovascular disease, obesity, and metabolic syndrome has been confirmed in several studies [45–48]. We have not only confirmed obesity, hypertension, psoriatic arthritis, dyslipidemia and diabetes as main comorbidities among our psoriatic patients, but also that a high body mass index and hypertension was significantly associated with disease severity. These findings highlight the importance of designing and implementing metabolic syndrome screening protocols in outpatient dermatological care.

Interestingly, sleep disturbances were more frequent than depression and anxiety among our patients. However, we consider that this finding requires a follow-up since such disorders could be the triggers of future psychiatric conditions due to the reported link with other medical illnesses, including diabetes and depression [49].

Psoriasis direct costs include over-the-counter products, physician visits, prescriptions, transport, and hospitalizations or emergencies, whereas indirect costs include impaired work productivity. Although physicians' visits, some prescriptions and hospitalizations and emergency care are covered by the Colombian health system, several administrative barriers, the need for over-the-counter products and other costs (e.g., co-payments) impose an additional economic burden for patients. Although the majority of patients spent less than 50 US dollars per month on their illness, it was striking that 41% of the studied population either had no income or had an income below 224 US dollars per month, which shows that more than 20% of their income was spent on the disease. Moreover, we should also consider the impact that the pandemic may have had on this population since the data collected was prior to the COVID-19 era. Our results showed a lack of association between economic dependence and income with disease severity. These findings could be related to the large percentage of patients who were receiving systemic therapy at the time of the survey, as these are usually covered by the Colombian health benefits plan.

The limitation of our study was its cross-sectional design which is more prone to selection bias and does not allow us to draw directional causal inferences or to measure psoriasis severity fluctuations. Despite these limitations, the strength of this study relies on its target of patients recruited from different sources in the main cities in Colombia and on its in-depth and in-person characterization of the disease and its economic burden. In addition, we applied not only the Psoriasis-Area-and-Severity-Index and Physician-Global-Assessment but also the Body-Surface-Area in order to characterize our psoriatic patients better. This is important because an accurate assessment of the severity and extent of psoriasis is crucial, not only to defining its burden, but also to evaluate the effects of treatment. In fact, the use of these three scales has pointed out a population mainly with mild disease followed by moderate and severe cases, which is compatible real world disease distribution. However, it should be taken into account that the low severity of the disease in at least half of the patients could be due to ongoing systemic treatments. Another strength of this study is that we have characterized our patients for central adiposity not only with body mass index but also with waist circumference and waist-hip ratio, giving us objective data regarding obesity and cardiovascular risk for future follow-up.

CONCLUSIONS

This study shows a major impact of psoriasis on affected patients, which includes complex economic variables that need to be studied in more detail. It also raises awareness of the economic burden of the disease as it may result in inadequate treatment and reduced access to dermatological services. Our study also emphasizes the need for close monitoring of patients with psoriasis in order to prevent, identify, and manage their comorbidities. Last but not least, our study adds robust scientific data

to the dermatological community, as well as for the Colombian health authorities regarding healthcare standards.

Notes

Contributor roles

GS: Conception and design of the study, methodology, acquisition of data, original and draft preparation, analysis and interpretation of data, writing- reviewing and editing of the manuscript, and final approval of the submitted version. OM, NV, C-JD, EQ, JA, LC, IC, SH, L-DC, L-AC, CM, AA, LC and Colombian Dermatology Residents Group: Acquisition of data, writing-original draft preparation and final approval of the submitted version.

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Competing interests

None of the authors declares conflicts of interest. The pharmaceutical industry did not sponsored this study in anyway nor was involved in the design, analysis and/or development of the study.

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Ethics

The study was submitted and approved by the ethics committees of the IPS Universitaria (Approval Apr 25, 2019) and the Hospital San Vicente Fundación (Act No. 29-2018), in Medellín, Colombia.

Data sharing statement

All analyzed data is presented in the manuscript. However, the database of this study is available by request to the corresponding author.

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Características epidemiológicas e impacto de la psoriasis: estudio transversal multicéntrico

Resumen

Antecedentes

La carga de enfermedad y el tratamiento de la psoriasis han sido bien caracterizados en los países desarrollados, pero los estudios epidemiológicos realizados en América Latina son escasos.

Objetivos

Describir las características sociodemográficas, clínicas y económicas de la psoriasis en pacientes pediátricos y adultos de Colombia.

Métodos

Este fue un estudio observacional transversal que incluyó pacientes recolectados en consultorios privados de dermatología, instituciones prestadoras de salud y hospitales de siete ciudades de Colombia. Se incluyeron datos relacionados con la distribución de la enfermedad, peso, altura, índice de masa corporal, medición de la cintura/cadera, severidad de la enfermedad, tratamiento, antecedentes de comorbilidades y costos directos para el paciente o la familia. Se realizó un análisis de regresión logística múltiple para evaluar las asociaciones entre la severidad de la psoriasis y las variables sociodemográficas y clínicas.

Resultados

Se incluyeron 203 pacientes (43.8% mujeres y 56.2% hombres) con un rango de edad entre 7 a 89 años. El subtipo principal fue la psoriasis vulgar y la edad media de diagnóstico fue de 37,1 años. Las comorbilidades más frecuentes fueron la obesidad, la hipertensión arterial, la artritis psoriásica, la dislipidemia y la diabetes. Las mujeres tuvieron un mayor riesgo de presentar artritis psoriásica. El índice de masa corporal y la hipertensión se asociaron significativamente con la severidad de la psoriasis, mientras que ser mujer y no obeso se relacionó con un menor riesgo, respectivamente. Un tercio de los pacientes tenía antecedentes familiares de psoriasis y trastornos del sueño. Cuarenta y uno por ciento de los participantes no tenían ingresos o tenían ingresos inferiores a 224 dólares estadounidenses por mes y >20% de sus ingresos los gastaron en la enfermedad.

Conclusiones

Este estudio muestra un gran impacto de la psoriasis en los pacientes afectados y contribuye a comprender la carga de la psoriasis en América Latina aportando datos científicos sólidos a la comunidad dermatológica y a las autoridades sanitarias colombianas con respecto a los estándares de atención médica. También crea conciencia sobre la carga económica de la enfermedad y también enfatiza la necesidad de un seguimiento estrecho de los pacientes con psoriasis para prevenir, identificar y manejar sus comorbilidades.



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