



# DERMATOLOGÍA PEDIÁTRICA

Gloria Garnacho Saucedo

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Con la colaboración de:

Organiza:







# DERMATITIS ATÓPICA

Con la colaboración de:

Organiza:





### ¿Es la DA una única enfermedad?





NIÑOS



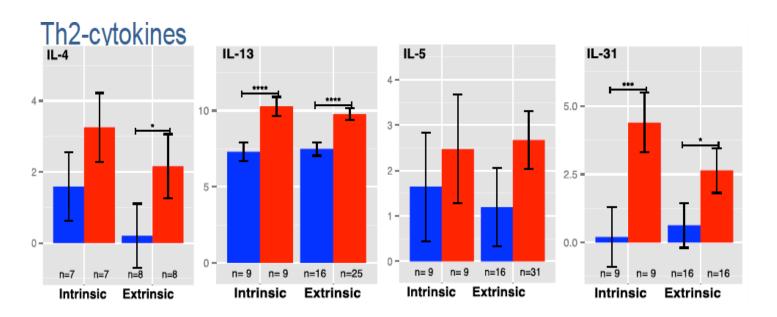




Estas diferencias podrían tener implicaciones terapéuticas

### DA intrínseca vs extrínseca

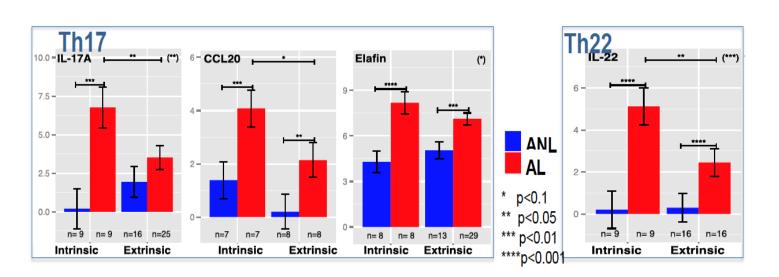




- Interleuquinas Th2 elevadas en los dos tipos
- Th2 es una diana en ambos tipos de DA

### DA intrínseca vs extrínseca

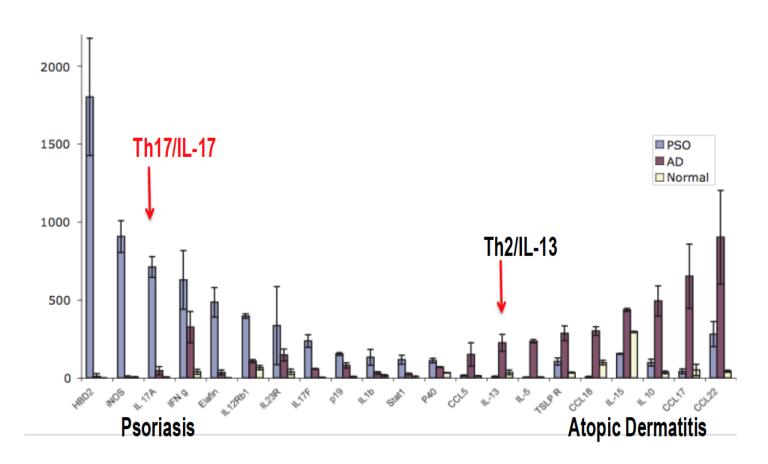




Th17 y Th22 más elevadas en la intrínseca

# Psoriasis y DA como polos de un espectro de inflamación cutánea





#### Research letter

#### A randomized trial of a barrier lipid replacement strategy for the prevention of atopic dermatitis and allergic sensitization: the PEBBLES pilot study

DOE 10.1111/bjd.15747

Daw Enros, it is hypothesized that the impaired skin harrier in atopic dermatitis (AD) allows the immune system to be exposed to environmental allesgens, resulting in sensitization and allergic disease. Two small trials recently found that routine use of emollients reduced the incidence of AD during the active treatment period by approximately half. It remains unknown whether prophylactic use of emollients can prevent the development of AD beyond the treatment period (as opposed simply to delaying its onset) or whether this reduction in AD leads to a reduced tisk of allergic sensitization.

The previous trials in this area have used standard emollients.<sup>2,8</sup> In this trial, we chose a ceramide-dominant emollient (PpiCeram<sup>™</sup>: PuraCap Pharmaceutical LLC, South Plainfield, NJ, U.S.A.), as it may provide greater preventive effects.<sup>4</sup> Skin affected by AD is deficient in ceramides.<sup>5</sup> EpiCeram has been formulated to contain physiological ratios of ceramides, cholesterol and free farty acids, and has a slightly acidic pH (5-0), which aids the production and secretion of ceramides by the skin.<sup>6</sup> Acidic emollients have been shown to help prevent AD and airway inflammation in a murine model.<sup>7</sup> We have previously demonstrated parent compliance, and initial evidence of safety, for use of EpiCesam for AD prevention in neonates.<sup>8</sup>

We conducted a pilot randomized, parallel, single-blind (outcome assessor), controlled trial of the effect of twice-daily application of EpiCeram for the first 6 months of life on the incidence of AD and skin barrier function in high-risk infants up to 12 months of age. Term infants with a family history of allergic disease were recruited from maternity wards (Appendix S1; see Supporting Information). At enrolment, parents of infants in the intervention group were shown how to apply approximately 6 g of EpiCeram to the full skin surface of their child twice per day. Treatment was to commence within the first 3 weeks. No other skincase instructions were provided to either group.

Clinical follow-up of infants by a blinded assessor (C.A.) occurred at 6 weeks, 6 months and 12 months of are.

Table 1 Effect of intervention on atopic dematitis (AD) at 6 weeks, 6 months and 12 months

	Control group, % (n/N)	Cream group, % (e/N)	Risk ratio (95% CI)	P-value*
U.K. working party definition				
6 weeks	0 (0/38)	8 (3/39)	_	0-24
6 months	19 (7/37)	10 (4/39)	0-54 (0-17-1-70)	0.34
12 months	17 (6/36)	8 (3/37)	0-49 (0-13-1-80)	0-31
Cumulative to 6 months	22 (8/37)	13 (5/38)	0-61 (0-22-1-69)	0.38
Cumulative to 12 months	31 (11/36)	18 (7/38)	0-60 (0-26-1-38)	0.28
Investigator-observed AD				
6 weeks	0 (0/38)	3 (1/39)	_	1
6 months	17 (6/36)	10 (4/39)	0-62 (0-19-201)	0.51
12 months	16 (6/37)	5 (2/38)	0-32 (0-07-1-51)	0-15
Skin prick tests				
Food allergens*				
6 months	23 (8/35)	13 (5/39)	0-56 (0-20-1-56)	0-20
12 months	19 (7/36)	9 (3/34)	0-45 (0-13-1-61)	0.31
Inhalant allergens <sup>a</sup>				
6 months	0 (0/35)	0 (0/39)	-	1
12 months	3 (1/36)	9 (3/34)	3-18 (0-35-29-1)	0.35
Any allergen				
6 months	23 (8/35)	13 (5/39)	0-56 (0-20-1-56)	0.36
12 months	22 (8/36)	18 (6/34)	0.79 (0.31-2.05)	0.77

Cl, confidence interval. Estimated using Fisher's exact test. \*Combines responses from prior clinical assessments. 'Food allergens: ogg white, cow's milk and peanut. \*Inhalant allergens: dust mite, cat dender and rye grass.



EL uso profiláctico 2 veces al día de un emoliente que contenía una alta proporción de ceramidas, desde el periodo neonatal hasta los 6 meses de edad, se asoció con una tendencia hacia una menor incidencia de DA y sensibilización alimentaria a los 12 meses







Contents lists available at ScienceDirect





# Efficacy of bleach baths in reducing severity of atopic dermatitis: A systematic review and meta-analysis



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#### ARTICLE INFO

#### Article history:

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#### ABSTRACT

**Background:** Bleach baths have been proposed as a treatment for decreasing the severity of atopic dermatitis (AD). However, conflicting results have been found regarding their efficacy.

Objective: To determine the efficacy of bleach vs water baths at decreasing AD severity.

**Methods:** We performed a systematic review of all studies evaluating the efficacy of bleach baths for AD. Cochrane, EMBASE, GREAT, LILACS, MEDLINE, and Scopus were searched. Two authors independently performed study selection and data extraction.

**Results:** Five studies were included in the review. Four studies reported significantly decreased AD severity in patients treated with bleach on at least 1 time point. However, of 4 studies comparing bleach with water baths, only 2 found significantly greater decreases in AD severity with bleach baths, 1 found greater decreases with water baths, and 1 found no significant differences. In pooled analyses, there were no significant differences observed between bleach vs water baths at 4 weeks vs baseline for the Eczema Area and Severity Index ( $I^2 = 98\%$ ; random effect regression model, P = .16) or body surface area ( $I^2 = 96\%$ ; P = .36). **Conclusion:** Although bleach baths are effective in decreasing AD severity, they do not appear to be more effective than water baths alone. Future larger-scale, well-designed randomized controlled trials are needed. © 2017 American College of Allergy, Asthma & Immunology. Published by Elsevier Inc. All rights reserved.





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### PEDIATRIC DERMATOLOGY PROCEDURES AND PEARLS

WILEY Pediatric Dermatology



### Warming up to the idea of wet wraps

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#### Abstract

Atopic dermatitis (AD) is a prevalent condition in the pediatric population that can have a significant effect on a child's quality of life. Management is multifactorial, involving topical pharmacotherapy, emollients, and a bathing regimen in conjunction with close supervision from the caregiver and physician. In the case of moderate to severe or refractory AD, wet wraps can be used. As part of our wet wrap regimen, we propose warming damp cotton pajamas in the dryer before application. This makes the wet wraps more comfortable for children, increasing adherence to the prescribed regimen.

### KEYWORDS

atopic dermatitis





## 

Data are expressed as both patient groups combined. A, The mean Scoring Atopic Dermatitis (SCORAD) index decreased significantly after melatonin treatment compared with placebo. B, The treatment sequence (melatonin first vs placebo first) did not result in a significant difference in the treatment effect. C, The mean objective SCORAD index decreased significantly after melatonin treatment compared with placebo. D. The mean sleep-onset latency decreased significantly after melatonin treatment compared with placebo. Error bars indicate standard errors. The SCORAD index ranges from 0 to 103, and the objective SCORAD index ranges from 0 to 83, with greater scores indicating worse

### Chang Y. JAMA Pediatr 2016







- La alteración del sueño se correlaciona con el cansancio, fatiga, somnolencia diurna, aumento de las cefaleas, en paciente y familiares
- La melatonina oral (3 mg / día) en pacientes de 1\*-18 años acorta en 21.4 minutos el tiempo para conciliar el sueño
- Además, disminuye la severidad (SCORAD) frente a placebo (-9.1 (95% CI, -13.7 a -4.6; p < .001))

## Nuevos y emergentes tratamientos para la Dermatitis Atípica: agentes en fase II o fase III Ensayos clínicos



Compound	Mechanism of Action	Route of administration	
Currently in or completed phase III trials			
Crisaborole	PDE-4 inhibition	Topical	
Dupilumab	IL-4/IL-13 receptor alfa-chain antagonism	SC injection	
Currently in or completed phase II trials			
Apremilast	PDE-4 inhibition	Oral	
Fevipiprant (QAW039)	CRTH2 antagonism	Oral	
ILV-094	IL-22 antagonism	IV infusion	
Lebrikizumab	IL-13 antagonism	SC injection	
Ligelizumab (QGE031)	IgE antagonism	SC injection	
Nemolizumab (CIM331)	IL-31 receptor antagonism	SC injection	
OPA-15046	PDE-4 inhibition	Topical	
Q301	CRTH2 antagonism	Topical	
Tezepelumab (AMG157)	TSLP antagonism	IV infusion	
Tralokinumab	IL-13 antagonism	SC injection	
Ustekinumab	IL-23 p40 antagonism	SC injection	

# Long-term safety of crisaborole ointment 2% in children and adults with mild to moderate atopic dermatitis



Lawrence F. Eichenfield, MD, <sup>a,b</sup> Robert S. Call, MD, <sup>c</sup> Douglass W. Forsha, MD, <sup>d</sup> Joseph Fowler, Jr, MD, <sup>e</sup>
Adelaide A. Hebert, MD, <sup>f</sup> Mary Spellman, MD, <sup>g</sup> Linda F. Stein Gold, MD, <sup>h</sup> Merrie Van Syoc, BS, <sup>i</sup>
Lee T. Zane, MD, <sup>j</sup> and Eduardo Tschen, MD, MBA<sup>k</sup>

San Diego and Palo Alto, California; Richmond, Virginia; West Jordan, Utah; Louisville, Kentucky; Houston, Texas; Detroit, Michigan; New York, New York; and Albuquerque, New Mexico

**Background:** Long-term topical treatment is often required for atopic dermatitis (AD), a chronic inflammatory skin disease.

**Objective:** To assess the long-term safety results from a multicenter, open-label, 48-week safety study (AD-303) of patients (N = 517) ≥2 years of age with mild to moderate AD who continued crisaborole treatment, a topical phosphodiesterase-4 inhibitor, after completing a 28-day phase 3 pivotal study (AD-301, AD-302).

**Methods:** Global disease severity was assessed in patients every 4 weeks, and if assessed as mild or greater, a 28-day treatment period with crisaborole applied twice daily was initiated. Adverse events (AEs), including treatment-emergent AEs (TEAEs), and serious AEs were analyzed.

**Results:** During the pivotal studies and AD-303, 65% of patients reported ≥1 TEAE, most of which were mild (51.2%) or moderate (44.6%) and considered unrelated to treatment (93.1%). The frequency and severity of TEAEs were consistent. The most frequently reported treatment-related AEs (overall, 10.2%) were dermatitis atopic (3.1%), application-site pain (2.3%), and application-site infection (1.2%). Nine patients (1.7%) discontinued the long-term study because of TEAEs.

Limitations: Long-term efficacy was not analyzed.

Conclusion: Crisaborole ointment had a low frequency of treatment-related AEs over 48 weeks of treatment of patients with AD. (J Am Acad Dermatol 2017;77:641-49.)

*Key words:* atopic dermatitis; crisaborole; eczema; long-term safety; ointment; PDE4; phosphodiesterase-4; topical treatment.



Seguro
Eficaz a largo plazo
EA leves : quemazón y picor ( 2,3%)
No niveles en sangre relevantes

No uso en cuero cabelludo (cosmeticidad)

Proponen estudios en los que se combine con CE y ITC

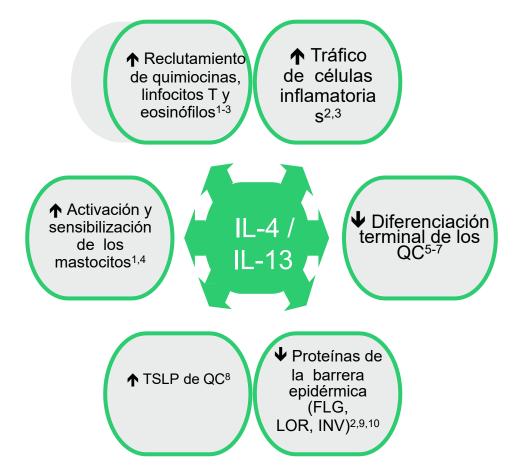
## Nuevos tratamientos tópicos para la DA...



- Tofaticinib ( inh JAK1), no en niños
  - Bissonnette R, Papp KA, Poulin Y, et al. Topical tofacitinib for atopic dermatitis: a phase IIa randomized trial. Br J Dermatol. 2016;175(5):902-911
- Ungüento JTE-052, pan JAK
  - Nakagawa H, Nemoto O, Igarashi A, et al. Efficacy and safety of topical JTE-052, a
    Janus kinase inhibitor, in Japanese adult patients with moderate-to-severe atopic
    dermatitis: a phase II, multicentre, randomized, vehicle-controlled clinical study. Br
    J Dermatol. 2018;178(2):424-432.
- Tapinarof (GSK2894512), tópico. Activación del receptor de hidrocarburo arilo
  - Mejora barrera cutánea, estudios en DA y psoriasis
  - Solo ratones
  - Smith SH, Jayawickreme C, Rickard DJ, et al. Tapinarof Is a Natural AhR Agonist that Resolves Skin Inflammation in Mice and Humans. <u>J Invest Dermatol</u>. 2017;137(10):2110-2119.

# IL-4 e IL-13 intervienen en la inflamación y las alteraciones de la barrera cutánea en la DA



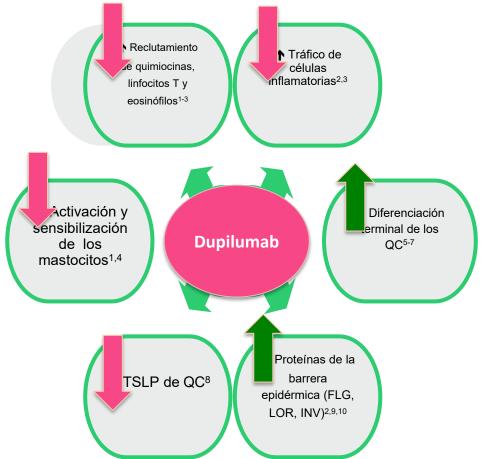


FLG: filagrina; INV: involucrina; LOR: loricrina

1. Zheng T, et al. J Invest Dermatol. 2009; 129: 742-751. 2. Brandt EB, Sivaprasad U. J Clin Cell Immunol. 2011; 2: 110. 3. Gandhi NA, et al. Nat Rev Drug Discov. 2016; 15: 35-50. 4. Chen L, et al. Clin Exp Immunol. 2004; 138: 375-387. 5. Noda S, Krueger JG, Guttman E. J Allergy Clin Immunol. 2015; 135: 324-336. 6. Leung DYM, Guttman-Yassky E. J Allergy Clin Immunol. 2014; 134: 769-779. 7. Howell MD, et al. J Invest Dermatol. 2008; 128: 2.248-2.258. 8. Gittler JK, et al. J Allergy Clin Immunol. 2013; 131: 300-313. 9. Danso MO, et al. J Invest Dermatol. 2014; 134: 1.941-1.950. 10. Kim BE, Leung DY, Boquniewicz M, Howell MDI. Clin Immunol. 2008; 126: 332-337

IL-4 e IL-13 intervienen en la inflamación y las alteraciones de la barrera cutánea en la DA





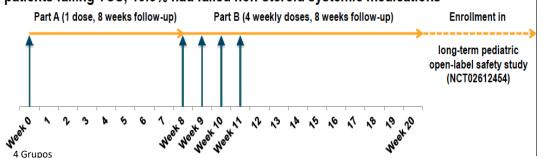
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1. Zheng T, et al. J Invest Dermatol. 2009; 129: 742-751. 2. Brandt EB, Sivaprasad U. J Clin Cell Immunol. 2011; 2: 110. 3. Gandhi NA, et al. Nat Rev Drug Discov. 2016; 15: 35-50. 4. Chen L, et al. Clin Exp Immunol. 2004; 138: 375-387. 5. Noda S, Krueger JG, Guttman E. J Allergy Clin Immunol. 2015; 135: 324-336. 6. Leung DYM, Guttman-Yassky E. J Allergy Clin Immunol. 2014; 134: 769-779. 7. Howell MD, et al. J Invest Dermatol. 2008; 128: 2.248-2.258. 8. Gittler JK, et al. J Allergy Clin Immunol. 2013; 131: 300-313. 9. Danso MO, et al. J Invest Dermatol. 2014; 134: 1.941-1.950. 10. Kim BE, Leung DY, Boguniewicz M, Howell MDl. Clin Immunol. 2008; 126: 332-337

# An update on topical therapy for atopic dermatitis



Phase 2a, open-label, ascending-dose, sequential-cohort trial among AD patients failing TCS; 19.5% had failed non-steroid systemic medications



Amy S. Paller, M.D.

"the dawn of the decade of eczema"

- Dos grupos de edad: 6-11 años (IGA 4) y 12-17 años (IGA 3 o 4)
- Dos dosis en cada grupo de edad: 2 mg/kg y 4 mg/kg

14 días de estabilidad a temperatura ambiente. Transferencia de jeringa a jeringa (para evitar tirar el sobrante)



2-4 mg / kg /semana, x4 (similar efficacy)

<30 kg: 200 mg dosis de carga, luego 100 mg cada 2 semanas 30-60 kg: 400mg dosis de carga, luego 200 mg cada 2 semanas 600 mg de carga y 300 mg cada 4 semanas

Máximo 6 mg/kg/semana

Primer estudio que estudia el dupilumab en pacientes pediátricos entre 6-18 años



# PSORIASIS PEDIÁTRICA

Con la colaboración de:

Organiza:





# Megha M. Tollefson, MD; Holly K. Van Houten, BA; Dennis Asante, MS; Xiaoxi Yao, PhD; Hilal Maradit Kremers, MD. N JAMA dermatology Enero 2018



Research

JAMA Dermatology | Original Investigation

### Association of Psoriasis With Comorbidity Development in Children With Psoriasis

Megha M, Tollefson, MD: Holly K, Van Houten, BA: Dennis Asante, MS: Xiaoxi Yao, PhD: Hilal Maradit Kremers, MD

IMPORTANCE Children with psoriasis are at increased risk for comorbidities. Many children with psoriasis are also overweight or obese; it is unknown whether the increased risk of comorbidities in these children is independent of obesity.

OBJECTIVE To determine the risk of elevated lipid levels (hyperlipidemia/hypertriglyceridemia), hypertension, metabolic syndrome, polycystic ovarian syndrome, diabetes, nonalcoholic liver disease, and elevated liver enzyme levels in children with and without psoriasis, after accounting for obesity.

DESIGN, SETTING, AND PARTICIPANTS This was a retrospective cohort study of claims data from Optum Laboratories Data Warehouse (includes ISO million privately insured and Medicare enrollees). A cohort of 29 957 children with psoriasis (affected children) and an age. sex., and race-matched comparator cohort of 29 957 children without psoriasis were identified and divided into 4 groups: (1) nonobese, without psoriasis (reference cohort); (2) nonobese, with psoriasis; (3) obese, without psoriasis; and (4) obese, with psoriasis.

MAIN OUTCOMES AND MEASURES Risk of developing comorbidities (Cox proportional hazards regression).

RESULTS The overall mean (SD) age of those included in the cohort was 12.0 (4.4) years, and 16 034 (53.5%) were girls. At baseline, more affected children were obese (862 [2.9%] vs 463 [1.5%]; P < 0.01 for all comparisons). Children with psoriasis were significantly more likely to develop each of the comorbidities than those without psoriasis (P < 0.01). Obesity was a strong risk factor for development of each comorbidity, even in those without psoriasis (hazard ratios [HRS] ranging from 2.26 to 18.11). The risk of comorbidities was 40% to 75% higher among nonobese children with vs without psoriasis: elevated lipid levels (HR, 1.42; 95% CI, 1.23-1.62), hypertension (HR, 1.64; 95% CI, 1.40-1.93), diabetes (HR, 1.58; 95% CI, 1.271-95), metabolic syndrome (HR, 1.62; 95% CI, 1.13-2.33), polycystic ovarian syndrome (HR, 1.49; 95% CI, 1.18-1.88), nonalcoholic liver disease (HR, 1.76; 95% CI, 1.16-2.65), and elevated liver enzyme levels (HR, 1.46; 95% CI, 1.271-6.7). Except for hypertension (P = 0.3), no significant interaction occurred between psoriasis and obesity on the risk of comorbidities.

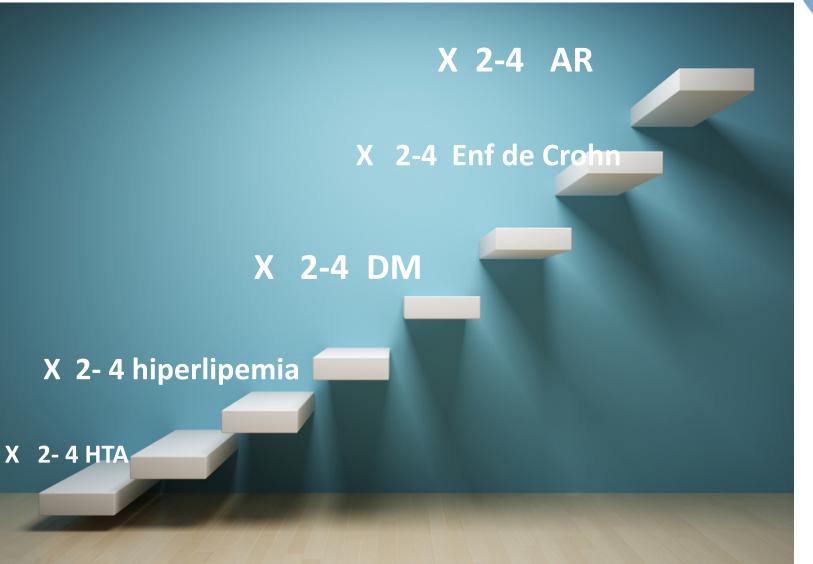
CONCLUSIONS AND RELEVANCE Children with psoriasis are at greater risk of developing obesity, hyperlipidemia, hypertension, diabetes, metabolic syndrome, polycystic ovarian syndrome, nonalcoholic liver disease, and elevated liver function enzyme levels than children without psoriasis. While psoriasis is a small independent risk factor for the development of these comorbidities, obesity is a much stronger contributor to comorbidity development in children with psoriasis. Supplemental conten

Author Affiliations: Department of Demratology, Mayo Clinic, Rochester, Minnesota (Tollefson); Department of Podiatrics and Adolescent Medicine, Mayo Clinic, Rochester, Minnesota (Tollefson); Robert D. and Patricia E. Kern Center for Science of Health Care Delivery, Mayo Clinic, Rochester, Minnesota (Van Houten); OptumLabs, Cambridge, Massachusetts (Van Houten); Department of Health Sciences Research, Mayo Clinic, Rochester, Minnesota (Asante, Yoan Houten); Maradit Kremers).

- Psoriasis pediátrica enfermedad sistémica:
  - Estado proinflamatorio como responsable del aumento de riesgo cardiometabólico desde la infancia:
    - Arterioesclerosis precoz
    - Resistencia a insulina
    - Obesidad

JAMA Dermatol. doi:10.1001/jamadermatol.2017.5417 Published online January 10, 2018.





## Artritis psoriásica: "curso bimodal"

JEHRAH RAYMW & CUULAUUH

JAMA Dermatology | Consensus Statement

### Pediatric Psoriasis Comorbidity Screening Guidelines

Emily Osier, MD; Audrey S. Wang, MD; Megha M. Tollefson, MD; Kelly M. Cordoro, MD; Stephen R. Daniels, MD, PhD; Andrew Eichenfield, MD; Joel M. Gelfand, MD, MSCE; Alice B. Gottlieb, MD, PhD; Alexa B. Kimball, MD, MPH; Mark Lebwohl, MD; Nehal N. Mehta, MD, MSCE; Arny S. Paller, MD; Joffrey B. Schwimmer, MD; Dennis M. Styne, MD; Abby S. Van Voorhees, MD; Wynnis L. Tom, MD; Lawrence F. Eichenfield, MD

IMPORTANCE Psoriasis is a complex inflammatory skin condition associated with serious medical comorbidities in adults, including obesity, hypertension, dyslipidemia, type 2 diabetes mellitus, psoriatic arthritis, nonalcoholic fatty liver disease, depression, anxiety, and decreased quality of life. Because psoriasis begins in childhood in almost one-third of patients, early identification of risk may be critical to minimizing effects on future health.

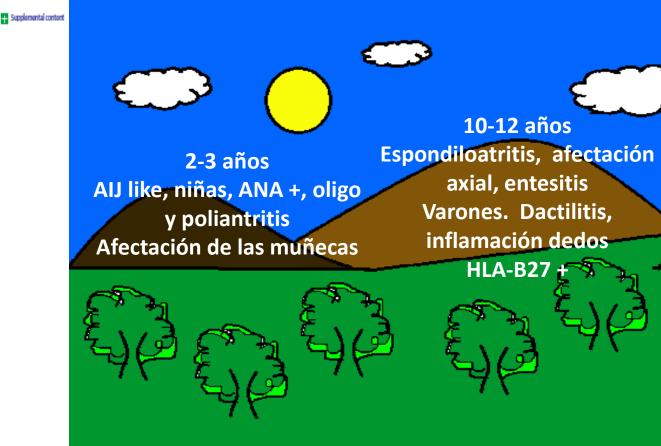
OBJECTIVE. To develop the first set of guidelines for comorbidity screening for patients with pediatric psoriasis based on current evidence.

EVIDENCE REVIEW A literature review was performed using PubMed from January 1999 through December 2015. Limiting the search to human studies published in English and removing reviews and editorials produced 153 relevant manuscripts. An expert panel in psoriasis, pediatric dermatology, pediatric rheumatology, pediatric gastroenterology, pediatric endocrinology, and adult and pediatric cardiology used the patient-centered Strength of Recommendation Taxonomy (SORT) method to evaluate and grade the quality of midence.

FINDINGS Because of the limited number of pediatric studies published on these topics, the strength of the panel's recommendations is classified as SORT level C expert consensus recommendations. The majority of recommendations coincide with those endorsed by the American Academy of Pediatrics for the general pediatric patient but with added attention to signs and symptoms of arthritis, depression, and anxiety. The panel also identified key areas for further investigation.

CONCLUSIONS AND RELEVANCE Patients with pediatric psoriasis should receive routine screening and identification of risk factors for associated comorbidities. These guidelines are relevant for all health care providers caring for patients with pediatric psoriasis, including primary care clinicians, dermatologists, and pediatric specialists. Because these are the first pediatric guidelines, re-review and refinement will be necessary as studies further detail, and possibly stratify, risk in affected children.  Niños: 80% de los casos la artritis precede a la psoriasis en 2 ó 3 años.

Adultos: primero psoriasis, luego artritis



### Psoriasis. Tratamiento sistémico



- Datos USA y Europa, casi 400 niños
- Metotrexato (69%): lento, problemas GI, acido fólico diario mejor que semanal.
- Retinoides(15%)
- Ciclosporina (8%)
- Fumaratos (5%, sólo aprobado en norte de Europa)
- Biológicos (27,2%)
  - Etanercept: > 6 años
  - Adalimumab: > 4 años
  - Ustekinumab>12 years



### **Nuevos tratamientos**

Apremilast

Secukinumab

Ixekizumab





# **MISCELÁNEA**

Con la colaboración de:

Organiza:







CLINICAL MEDICINE

The Journal of Clinical Investigation

# Gentamicin induces functional type VII collagen in recessive dystrophic epidermolysis bullosa patients

David T. Woodley, 1 Jon Cogan, 1 Yingping Hou, 1 Chao Lyu, 1 M. Peter Marinkovich, 2,3 Douglas Keene, 4 and Mei Chen 1

<sup>1</sup>Department of Dermatology, The Keck School of Medicine, University of Southern California (USC), Los Angeles, California, USA. <sup>2</sup>Department of Dermatology, Stanford University School of Medicine, Stanford, California, USA. <sup>3</sup>Dermatology, Veteran's Affairs Medical Center, Palo Alto, California, USA. <sup>4</sup>Shriners Hospital for Children, Portland, Oregon, USA.

- Gentamicina 0.1 % en crema 3 veces al día o intradérmica (8 gr) durante 2 semanas
- Expresión de colágeno 7, que persiste durante al menos 3 meses

## Sjs / net y tratamiento con ciclosporina



- 4 estudios (pocos niños)
- 2 retrospectivos
- 2 prospectivos abiertos
- Diferentes protocolos
- 3 mg/kg/d x 7 días
- 3,2,1 mg/kg/d x 10 días cada
- Reducción en las muertes observadas comparadas con las muertes anticipadas según SCORTEN
- Kirchoff M. JAAD 2014
- Singh GK. JEADV 2013
- Valeyrie-Allanore L BJD 2010
- Lee HY. JAAD 2017





3 casos pediátricos publicados en 2017 Ciclosporina 3 mg/kg/d repartida en dos dosis, 7-21 días Tiempo para la respuesta 2.2 días (1.5-3 días) Tiempo medio para la reepitelización 13 días (10-15 días) Bien tolerado





Case Report

## Pediatric Stevens-Johnson Syndrome/ Toxic Epidermal Necrolysis Halted by Etanercept

Geneviève M. Gavigan<sup>1,2</sup>, Nordau D. Kanigsberg<sup>1,2</sup>, and Michele L. Ramien<sup>1,2</sup>

Journal of Cutaneous Medicine and Surgery
I-2
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DOI: 10.1177/1203475418758989
jcms.sagepub.com





**Figure 2.** Etanercept halted progression and tense bullae flattened into normal skin without sloughing.





### **ORIGINAL ARTICLE**

# International Union of Immunological Societies: 2017 Primary Immunodeficiency Diseases Committee Report on Inborn Errors of Immunity

Capucine Picard 1,2 · H. Bobby Gaspar 3 · Waleed Al-Herz 4 · Aziz Bousfiha 5 ·

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A randomized, split-face, controlled, double-blind, single-centre clinical study: transient addition of a topical corticosteroid to a topical retinoid in patients with acne to reduce initial irritation

DOI: 10.1111/bid.15150

Das Enros, Topical retinoids are a first-line medication in acne treatment but their use is limited by erythema, scaling, dryness and initial worsening of acne, which contribute to noncompliance.<sup>1,2</sup> We sought a pharmacological strategy to decrease irritation and quicken the onset of action in an attempt to increase compliance. Topical corticosteroids (TCS) are commonly used for their anti-inflammatory properties, but are generally avoided on the face to prevent skin atrophy and aree induction.<sup>3</sup> We believed TCS could be used on the face in patients with acne to reduce the initial irritation from tretinoin without exacerbating the acne because topical tretinoin clears oral conticosteroidinduced acne.<sup>4</sup> As irritation is less common after 3–4 weeks, the TCS can be withdrawn within a month.

Emollients alone effectively reduce tretinoin-induced irritation, so a common over-the-counter product, Eucerin Original Healing Soothing Repair Crème (Beiersdorf AG, Hamburg, Germany), was chosen as a control.<sup>5</sup>

The study protocol, participants' characteristics and statistical methods used are available online (see Appendices S1, S2

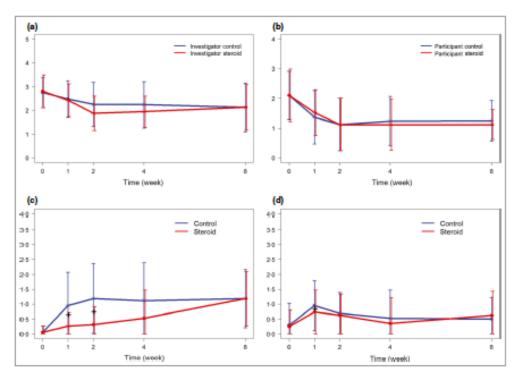


Fig 1. (a) Investigator-assessed global acne severity scores, rated on a scale of 0-5. (b) Participant-assessed acne severity scores, rated on 0-4 scale. (c) Investigator-assessed dryness, as rated on a scale of 0-4. (d) Investigator-assessed orythema, as rated on a scale of 0-4.





https://www.youtube.com/watch?v=pC fWV1RKN1I



# ¿Cómo mejorar la adherencia al retinoide tópico?



### **OBJETIVOS**

Reducir irritación Acelerar el inicio de la acción Favorecer la adhesión terapéutica

TRIAMCINOLONA 0.025% CREMA

TRETINOÍNA 0.05% CREMA





No atrofia cutánea ni telangiectasias No inducción de acné



+



2º MES



### SIN LIENDRERA









UNA ÚNICA APLICACIÓN en PELO SECO, DEJAR 10 MINUTOS Y ACLARAR

## ABAMETAPIR 0.74% LOCIÓN

Table 1. Patients Cleared of Lice at Day 14

 Study Abametapir Group (%)
 Placebo Group (%)
 P Value (%)

 Study 1
 88.2
 62.0

 <.001</td>
 5tudy 2
 81.0
 60.5
 <.001</td>

Bowles VM. J Med Entomol 2017

Br J Dermatol. 2017 Mar;176(3):809-812. doi: 10.1111/bjd.14849. Epub 2017 Jan 16.

# Clinical evaluation of local hyperthermia at 44 °C for molluscum contagiosum: pilot study with 21 patients.

 $\underline{\text{Gao YL}^1}, \underline{\text{Gao XH}^1}, \underline{\text{Qi RQ}^1}, \underline{\text{Xu JL}^2}, \underline{\text{Huo W}^1}, \underline{\text{Tang J}^1}, \underline{\text{Ren Y}^1}, \underline{\text{Zheng S}^1}, \underline{\text{Hong YX}^1}, \underline{\text{Song B}^{1,3}}, \underline{\text{Chen HD}^1}.$ 











## Tricología pediátrica



Research

JAMA Dermatology | Brief Report

# Screening Guidelines for Thyroid Function in Children With Alopecia Areata

Deepa Patel, BS; Ping Li, MD; Andrew J. Bauer, MD; Leslie Castelo-Soccio, MD, PhD

JAMA Dermatol. doi:10.1001/jamadermatol.2017.3694 Published online September 27, 2017.

conclusions and relevance We recommend that routine thyroid function screening should be restricted to AA patients with a medical history of Down syndrome, personal history of atopy, a family history of thyroid disease, or clinical findings (goiter) suggestive of potential thyroid dysfunction in the individual patient.

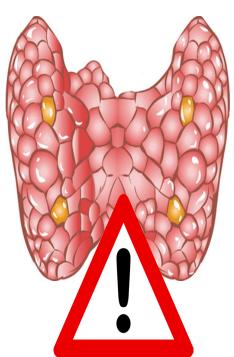
# Recomendaciones de screening de patología tiroidea en niños con alopecia areata



HIPOTIROIDISMO 2º A TIROIDITIS HASHIMOTO

HIPERTIROIDISMO 2º A ENFERMEDAD DE GRAVES

DISFUNCIÓN TIROIDEA SUBCLÍNICA



Síndrome de Down

Dermatitis atópica

Historia familiar enfermedad tiroidea

Sospecha clínica (fatiga, estreñimiento, intolerancia al frío, alteración curva crecimiento)

ESPERAR PARA HACER LA ANALÍTICA 48-72 HORAS SI SUPLEMENTOS DE BIOTINA ORAL, PUES PUEDEN ALTERAR RESULTADOS

### Tricología pediátrica



International Journal of **Dermatology** 

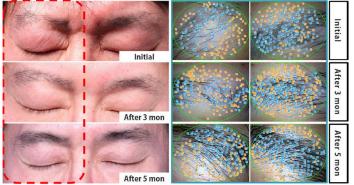
#### Report

Efficacy of superficial cryotherapy on the eyebrows of patients with alopecia universalis also treated with contact immunotherapy on the scalp: a prospective, split-face comparative study

Sung Jay Choe, MD, and Won-Soo Lee, MD, PhD

Methods Superficial cryotherapy was performed every other week on the right eyebrow (SC-treated) in a total of 20 patients who had been previously treated with diphenylcyclopropenone (DPCP) immunotherapy on the scalp. No specific treatment was performed on the left eyebrows as a control. The degree of eyebrow recovery was compared in 15 patients who continued to receive more than 10 superficial cryotherapy treatments (5 months of treatment) on their right eyebrow.

Results Hair density was significantly increased on both treated and control eyebrows after 5 months of treatment compared with the pretreatment density; moreover, the SC-treated eyebrows exhibited a significantly greater increase in density than the control eyebrows. Although hair thickness in the control eyebrows did not change significantly over the treatment period, hair thickness of the SC-treated eyebrows showed a statistically



(Rt): superficial cryotherapy (Lt): control



(Rt): superficial cryotherapy

(Lt): control

## Tricología pediátrica



DOI: 10.1111/pde.13451

- 1

Dermatology

Pediatric

WILEY

#### **ORIGINAL ARTICLE**

# Alopecia areata treated with hydroxychloroquine: A retrospective study of nine pediatric cases

Duri Yun MD<sup>1</sup> | Nanette B. Silverberg MD<sup>2</sup> | Sarah L. Stein MD<sup>1</sup>

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#### Correspondence

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#### Abstract

Background/Objectives: Alopecia areata is a common hair loss condition that is often emotionally devastating for patients. There is a paucity of effective treatments available. Hydroxychloroquine has been reported as variably effective in inducing significant hair regrowth in adults with alopecia areata. The objective of this retrospective study was to assess the benefit and tolerability of hydroxychloroquine in pediatric alopecia areata.

Methods: We conducted a retrospective review of nine children with a history of alopecia areata treated with hydroxychloroquine. Clinical data were obtained from patients treated at two tertiary care centers in the United States between July 1, 2013, and July 1, 2015.

Results: Alopecia scores of five patients improved by 6 months of treatment. Four patients experienced no improvement from baseline evaluation. The most common side effect associated with treatment was gastrointestinal intolerance and headache. Conclusion: This retrospective series suggests that hydroxychloroquine can be considered as a treatment option for alopecia areata in children.

tory and immunosuppressive activities. It has been thought to impair lysosomal function, and recent studies suggest that it inhibits endosomal toll-like receptor (TLR) activation by binding to nucleic acids and masking the TLR binding site, thus blocking immune activation. <sup>13,14</sup> The suggested maximum dose of hydroxychloroquine for children is 5 mg/kg/d and should be considered to avoid ocular toxicity with long-term use.

TABLE 1 Severity of Alopecia Tool

Grade	Hair loss, %
SO	0
S1	⊴25
S2	25-49
53	50-74
S4	75-99
a	75-95
b	96-99
S5	100

# Topical Janus kinase inhibitors for the treatment of pediatric alopecia areata





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JAK3 as an Emerging Target for Topical Treatment of Inflammatory Skin Diseases

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**Fig 1.** Alopecia areata with patient 4 after 2 months of treatment with 2% tofacitinib in VersaBase cream (**A**) and after 6 months of treatment with 2% tofacitinib in liposomal base (**B**).



# Uso off-label de inhibidores JAK en alopecia areata pediátrica

0	Craiglow et al. JAAD 2017	Estudio retrospectivo 13 adolescentes (12-17 años) con AA en placas, AT, AU TOFACITINIB 5 mg /12 horas 9 experimentan recrecimiento significativo del pelo Efectos secundarios leves
R A L	Castelo-Soccio et al. JAAD 2017	8 adolescentes (12-19 años) con AU TOFACITINIB 5 mg /12 horas x 5-18 meses Recrecimiento significativo, pero lento, en los 3 primeros meses de tratamiento, posteriormente más rápido Eficacia (SALT): 58% mejoría media (6 meses), cambio porcentual en SALT 52-79% (12 meses)

T Ó P I C	Craiglow et al. JAMA Dermatol 2016	Caso clínico, adolescente con AU RUXOLITINIB 0.6% crema Recrecimiento significativo de cejas y 10% pelo cuero cabelludo Bajada ligera de leucocitos (3800/μΙ) a las 12 semanas
	Bayart et al. JAAD 2017	6 pacientes pediátricos (3-17 años) con AA, AT, AU TOFACITINIB 2% base liposomada, RUXOLITINIB 1-2% BASE LIPOSOMADA 4/6 pacientes experimentan algún tipo de recrecimiento del pelo (3 de ellos, 75-95% recrecimiento)

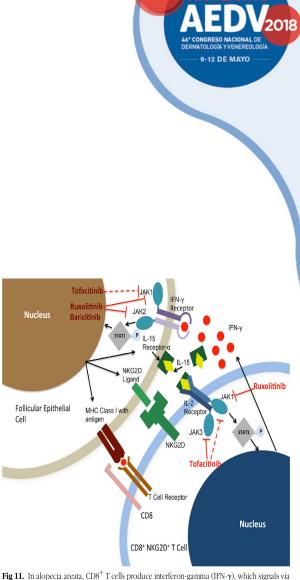


Fig 11. In alopecia areata, CDS\* T cells produce interferon-gamma (IFN-γ), which signals via Janus kinases 1 (JAK1) and JAK2 to enhance production of interleukin-15 (IL-15). In combination with the IL-15 receptor-α (chaperone protein), IL-15 binds to the surface of CDS\* T cells leading to signaling through JAK1 and JAK3 to produce more IFN-γ. The effect of the JAK inhibitors—tofactitnib, ruxolitinib, and barictitnib—are noted on this pathway. (Adapted with permission from Macmillan Publishers Ltd from Divito SJ, Kupper TS. Inhibiting Janus kinases to treat alopecia areata. Nat Med 2014;20:989-90. Copyright 2014.)

# Uso off-label de inhibidores JAK en alopecia areata pediátrica



Craiglow et al. JAAD 2017

Estudio retrospectivo 13 adolescentes (12-17 años) con AA en placas, AT, AU

TOFACITINIB 5 mg /12 horas

9 experimentan recrecimiento significativo del pelo

Efectos secundarios leves

Castelo-So

En adultos con AT o AU de más de 10 años de duración se ha demostrado la menor probabilidad de respuesta a tofacitinib.

El tratamiento en adolescentes puede ser particularmente útil para evitar la perdida irreversible de pelo.

T Ó P	Craiglow et al. JAMA Dermatol 2016	RUXOLITINIB 0.6% crema Recrecimiento significativo de cejas y 10% pelo cuero cabelludo Bajada ligera de leucocitos (3800/µl) a las 12 semanas	
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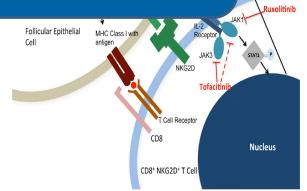


Fig 11. In alopecia areata, CD8<sup>+</sup> T cells produce interferon-gamma (IFN-γ), which signals via Janus kinases 1 (JAK1) and JAK2 to enhance production of interleukin-15 (IL-15). In combination with the IL-15 receptor-α (chaperone protein), IL-15 binds to the surface of CD8<sup>+</sup> T cells leading to signaling through JAK1 and JAK3 to produce more IFN-γ. The effect of the JAK inhibitors—tofacitinib, ruxolitinib, and baricitinib—are noted on this pathway. (Adapted with permission from Macmillan Publishers Ltd from Divito SJ, Kupper TS. Inhibiting lanus kinases to treat alopecia areata. Nat Med 2014:20-989-90. Copyright 2014.)

### Treatment of monilethrix with oral minoxidil



Rodney Sinclair, MBBS, MD, FACD Melbourne, Australia





**Fig 4.** Patient 2 is less severely affected than patient 1. Lateral and mid-frontal views of the scalp before and after 6 months of treatment with low-dose oral minoxidil.



Fig 2. Patient 1. Monilethrix. Lateral and posterior views of the scalp before and after 6 months of treatment with low-dose oral minoxidil.



## **MUCHAS GRACIAS**