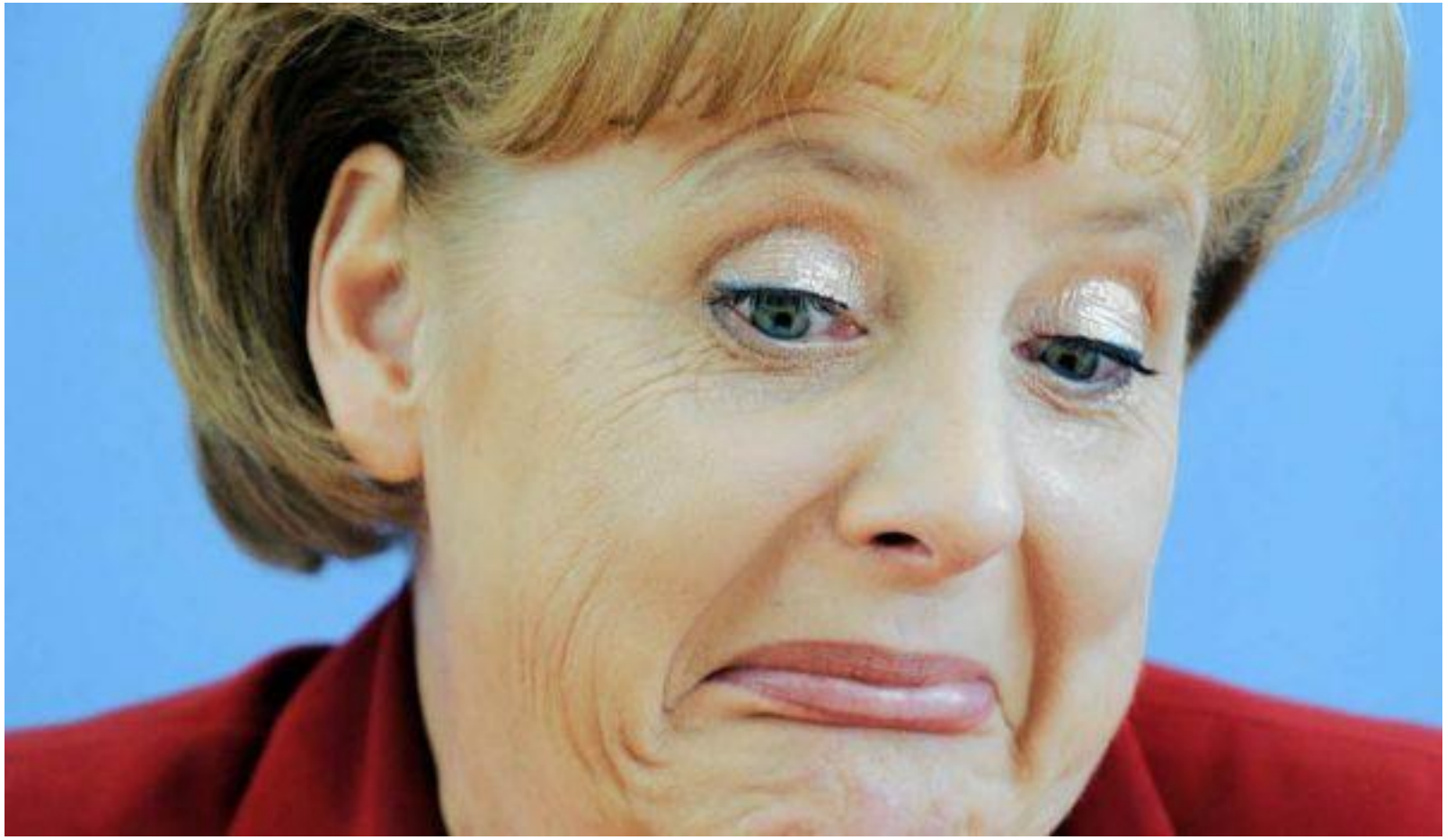
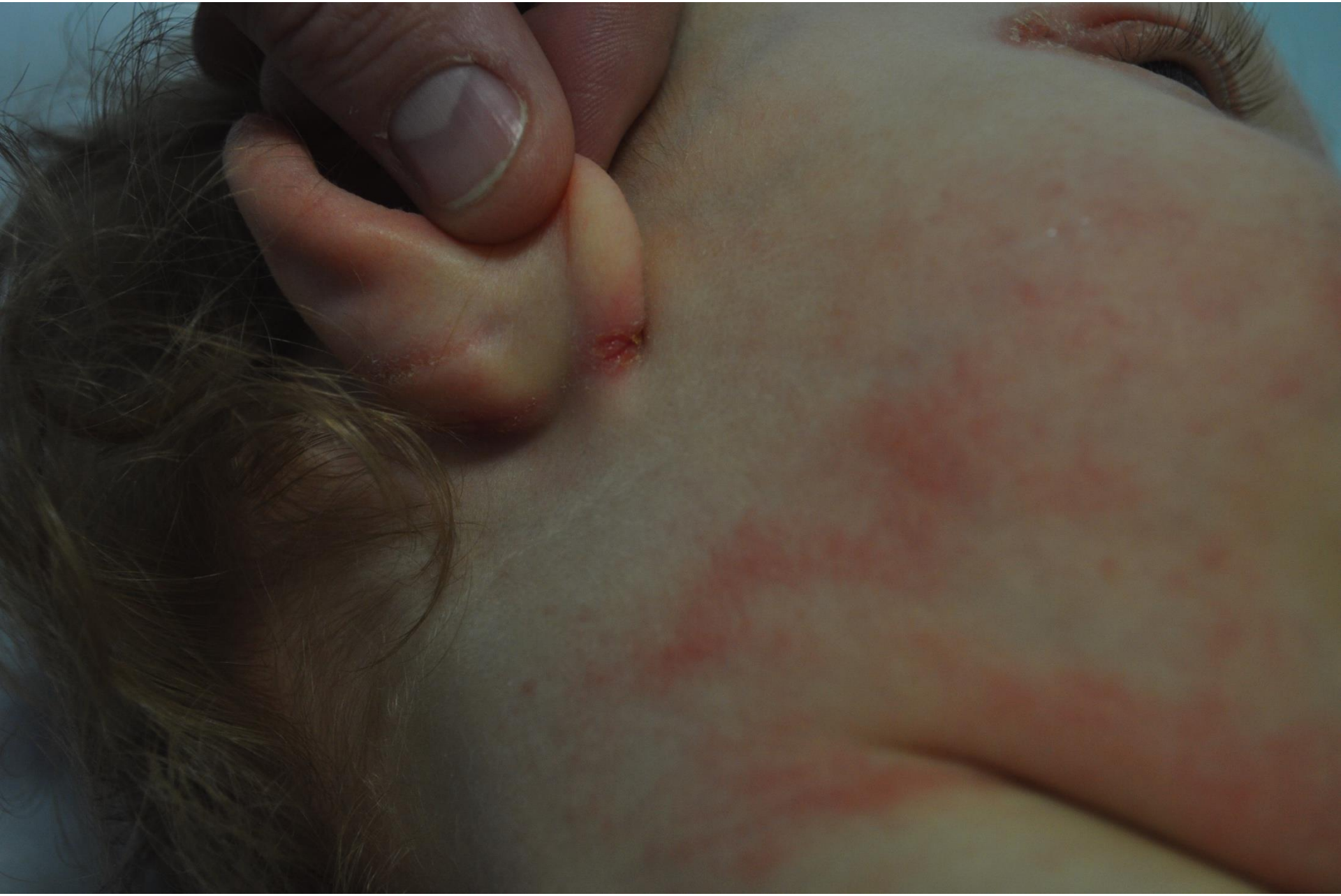
Azienda Ospedaliera - Università di Padova

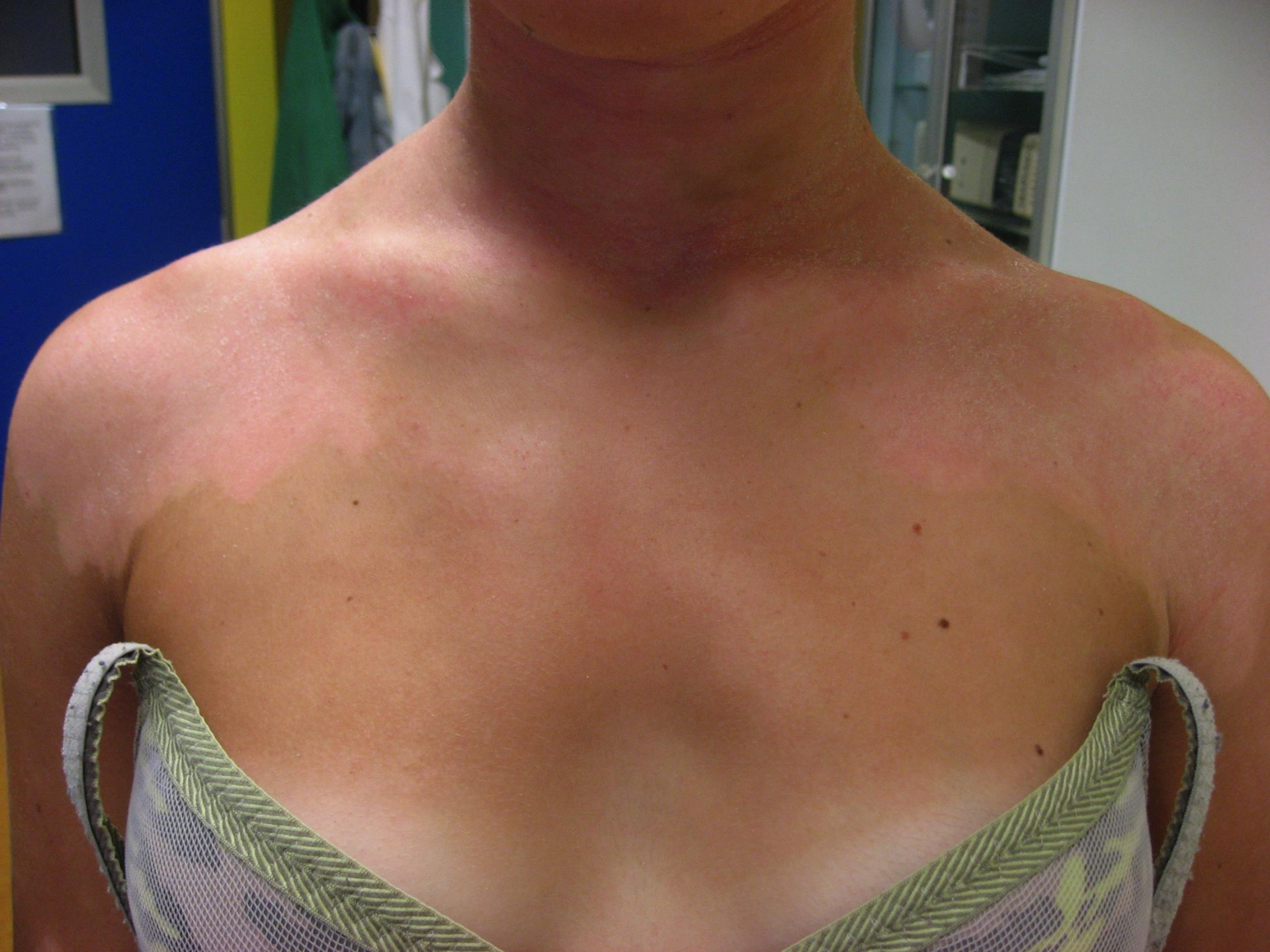
Centro Regionale di Dermatologia Pediatrica

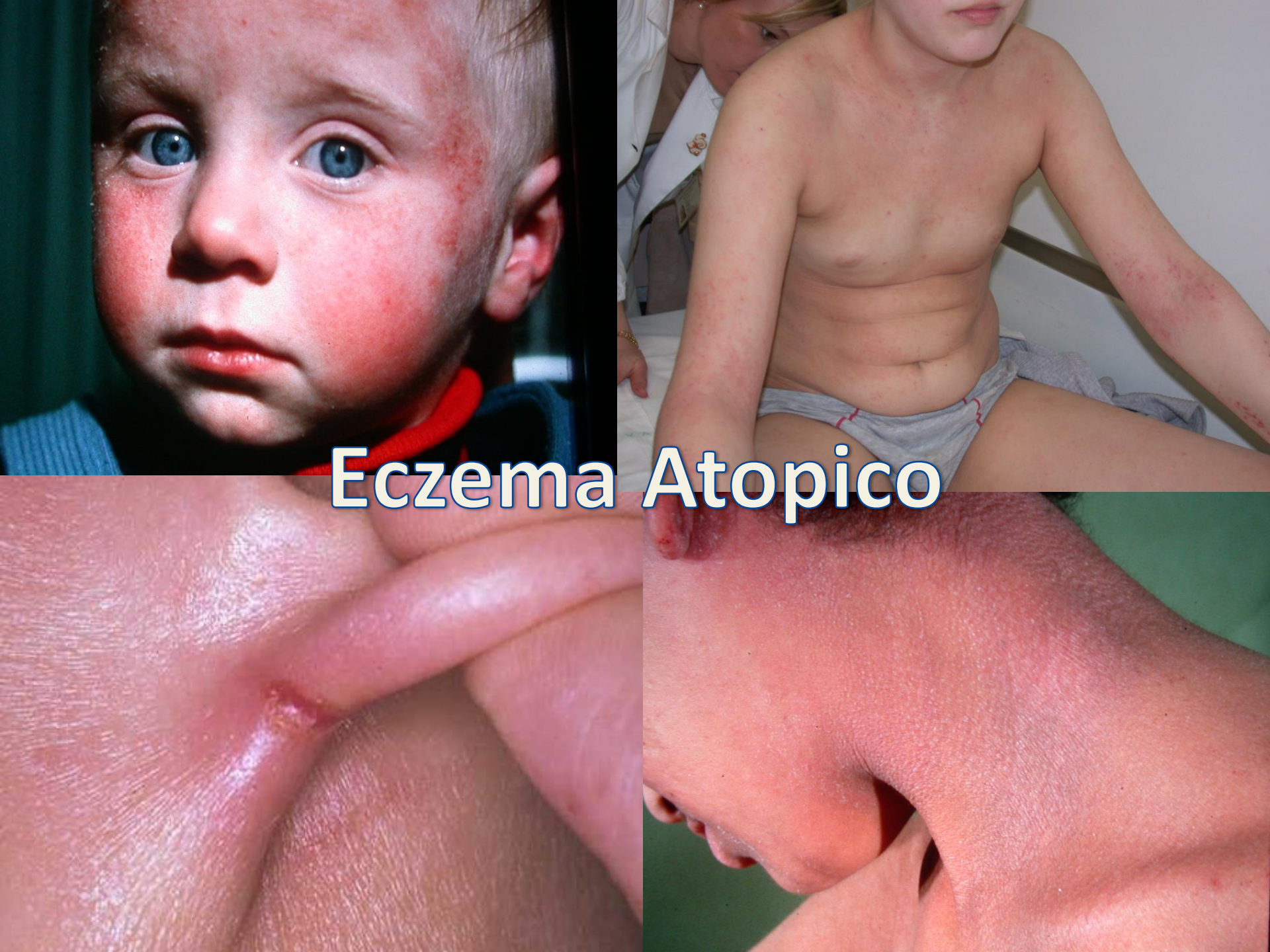
Eczema e Psoriasi, qui va sempre peggio!

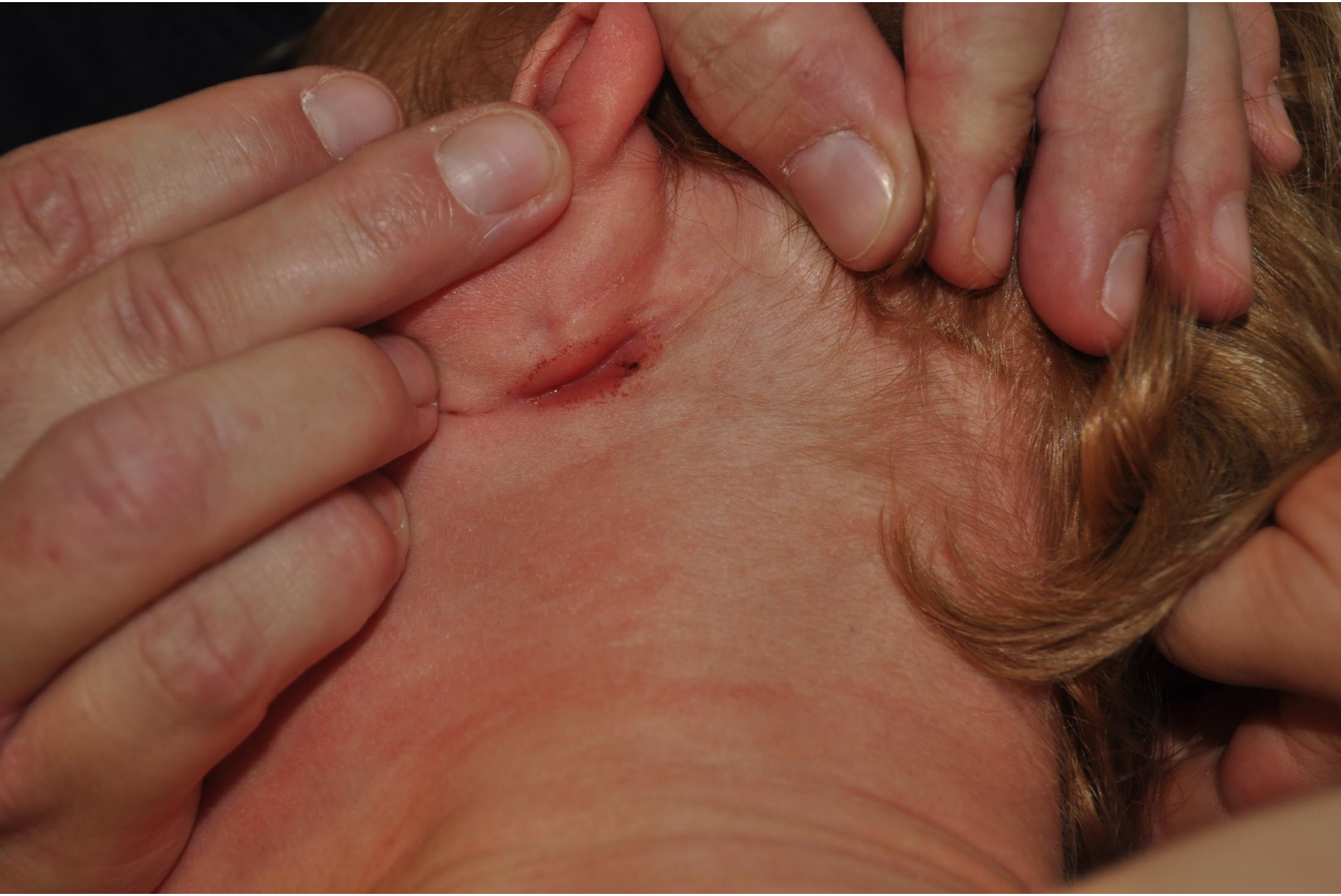
Anna Belloni Fortina

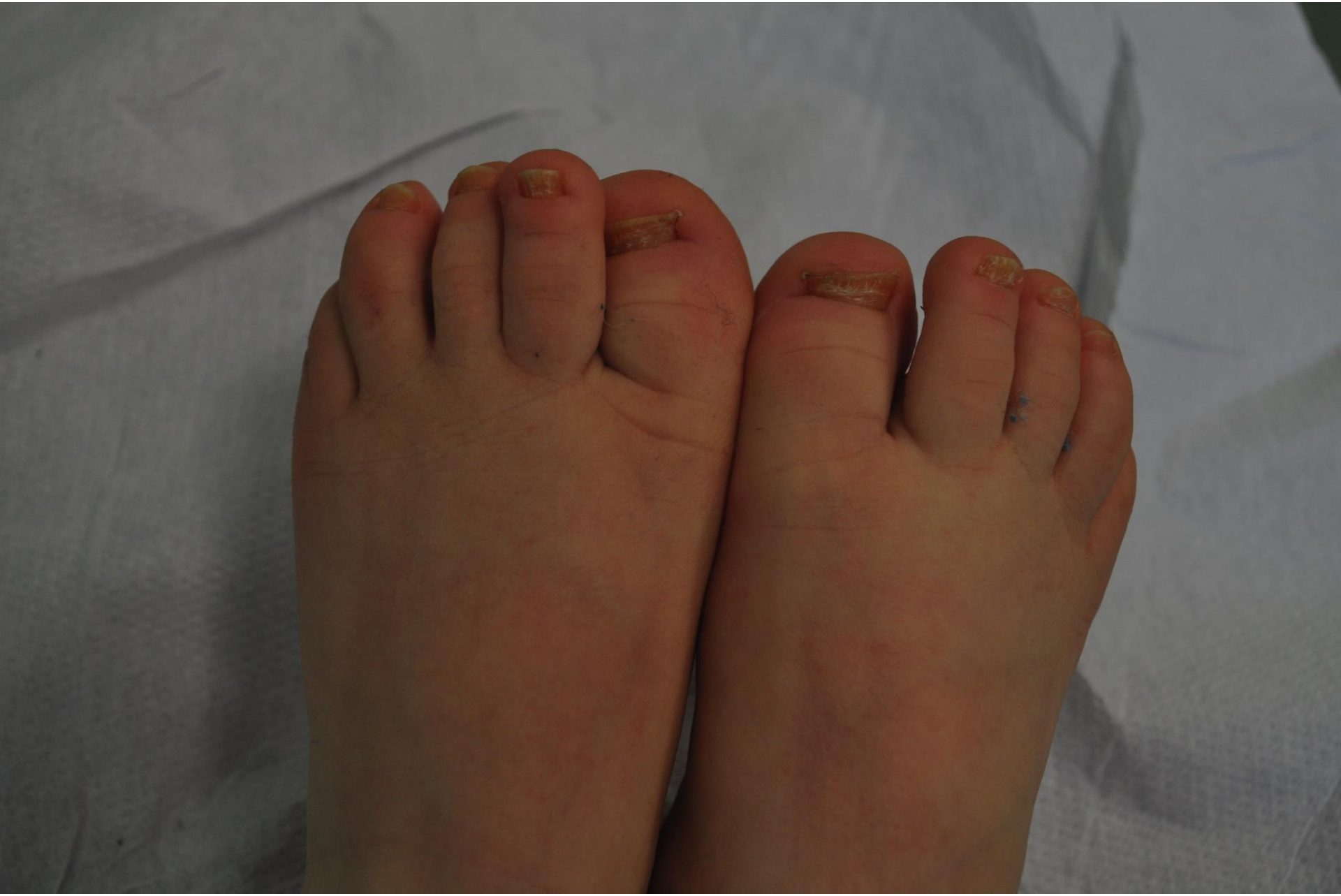


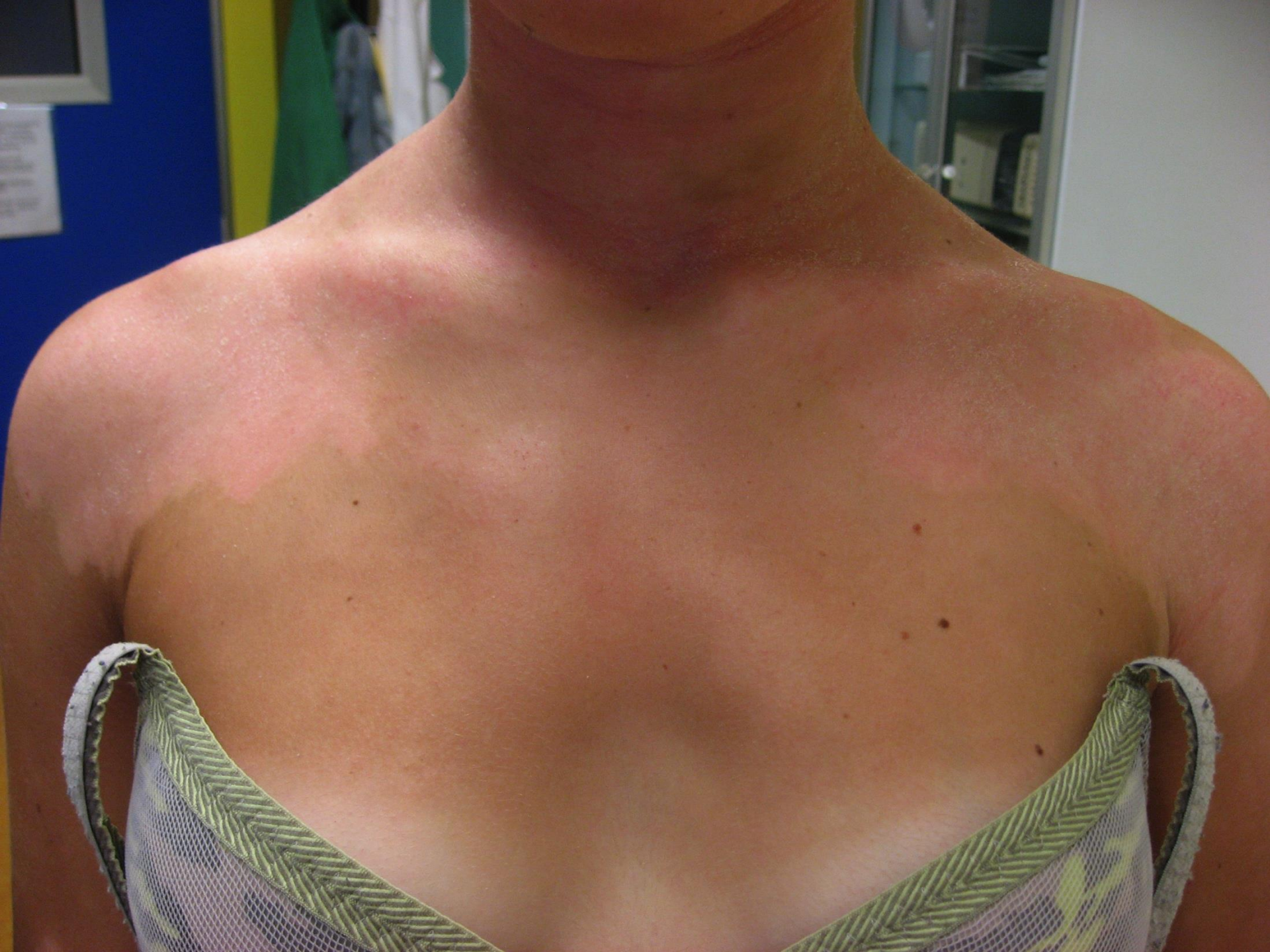


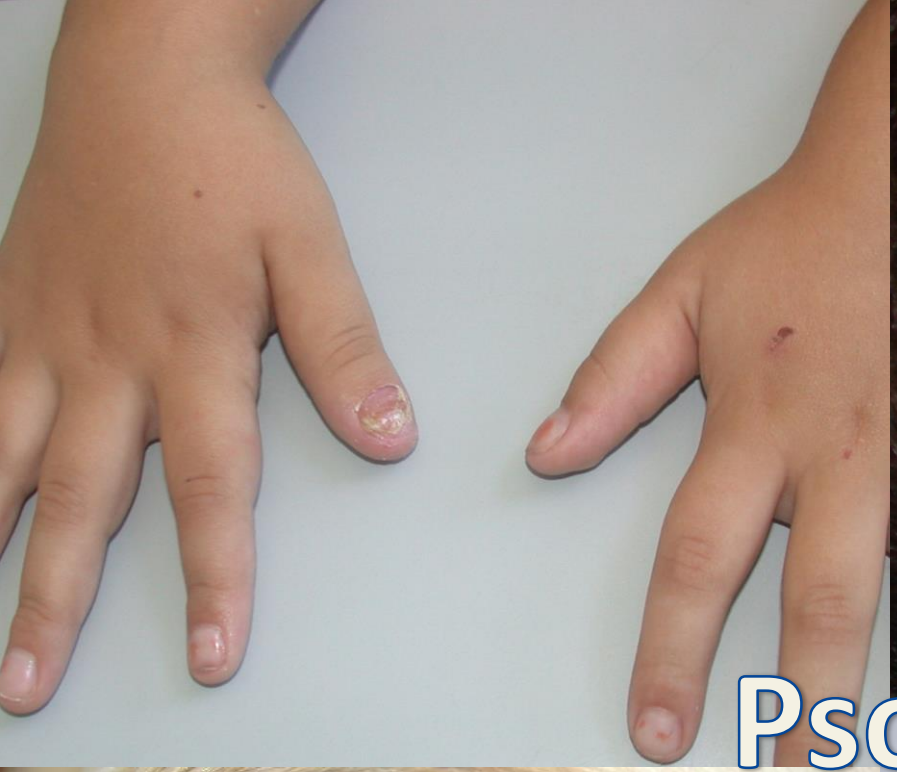
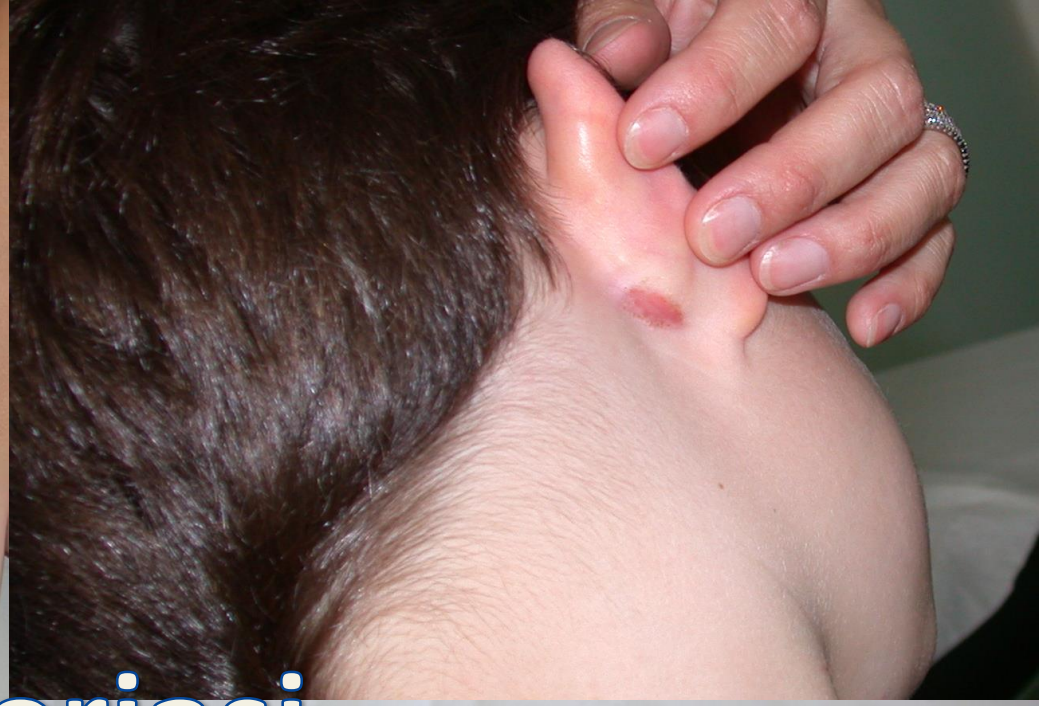
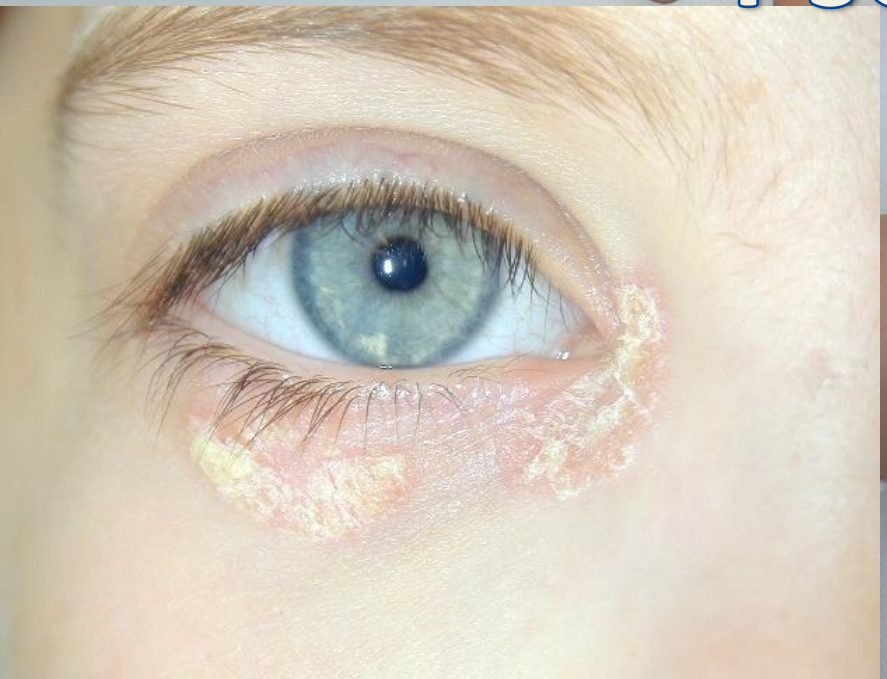
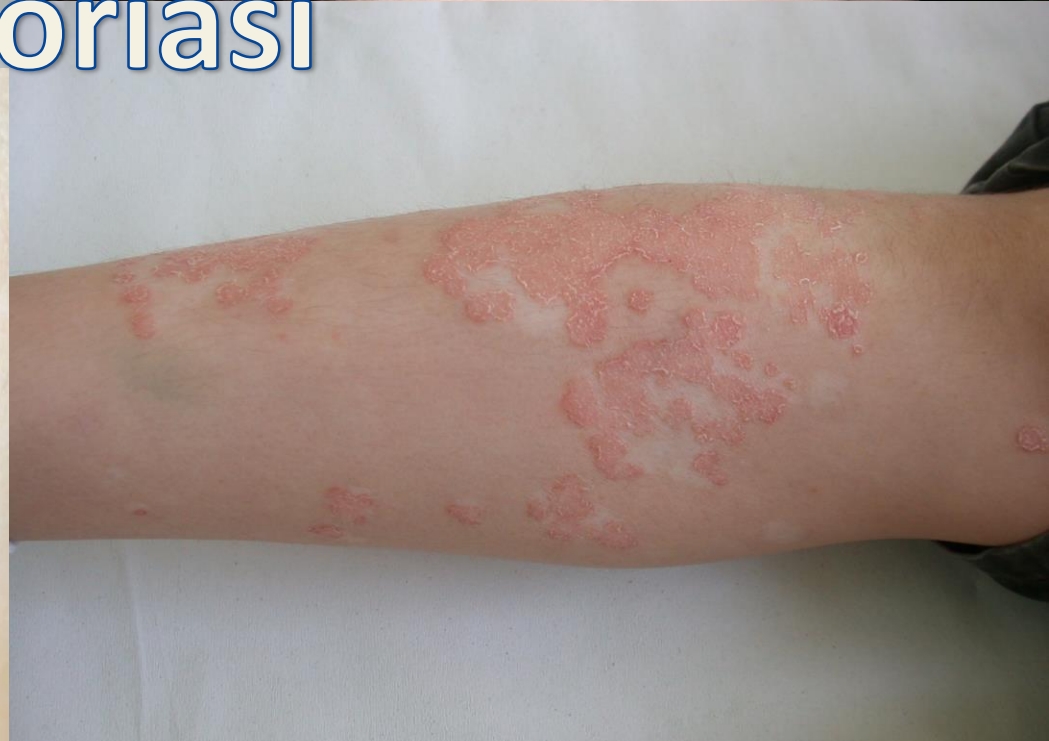



Eczema Atopico









Psoriasi



Eczema atopico
o Psoriasi?

Psoriasi

Eczema Atopico

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Review

Diagnosis of Atopic Dermatitis: Mimics, Overlaps, and Complications

Elaine C. Siegfried [1,†,*] and Adelaide A. Hebert [2,†]

	Diagnosis	Relative Prevalence		
		Infants	**Children**	**Adolescents/Adults**
Inflammatory Skin Conditions (See Section 2)	seborrheic dermatitis	common	uncommon	common
	psoriasis	less common	less common	common
	nummular dermatitis	less common	common	less common
	contact dermatitis [a]	common	common	common
	dermatographism [a]	less common	common	common
	pityriasis alba [a]	common	common	uncommon
	overlap (see Section 2.7)	common	common	common

"Overlap" is a term used to describe one or more coexisting inflammatory skin diseases. The most well described combination may be psoriasis-eczema overlap (PsE), also known as eczematous psoriasis and PsEma. Patients with PsE typically present with a combination of flexural eczema and psoriatic lesions that lack thick plaques and are more likely to experience itch than patients with isolated psoriasis (Figure 8) [12,34,35]. In one study, PsE responded well to psoriasis treatment strategies including TCS [34].

Original Paper

Dermatology

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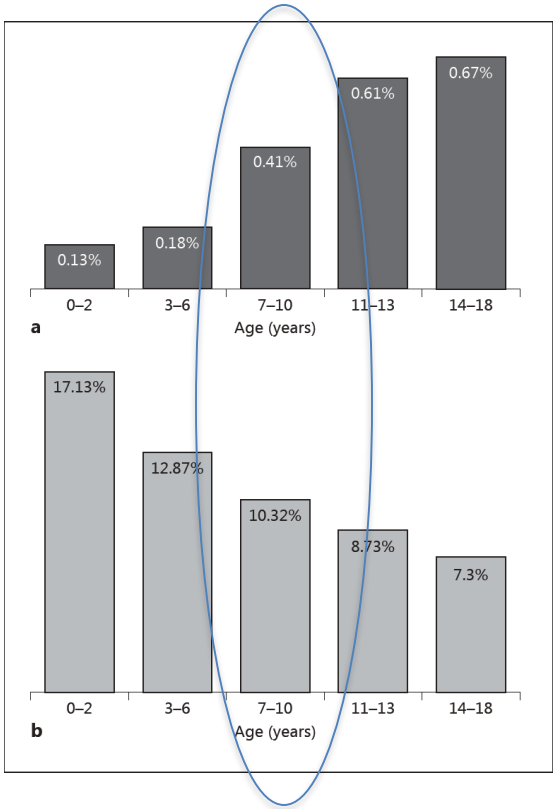
Epidemiology and Comorbidity in Children with Psoriasis and Atopic Eczema

Matthias Augustin[a] Marc A. Radtke[a] Gerd Glaeske[c] Kristian Reich[b]
Enno Christophers[d] Ines Schaefer[a] Arnd Jacobi[a]

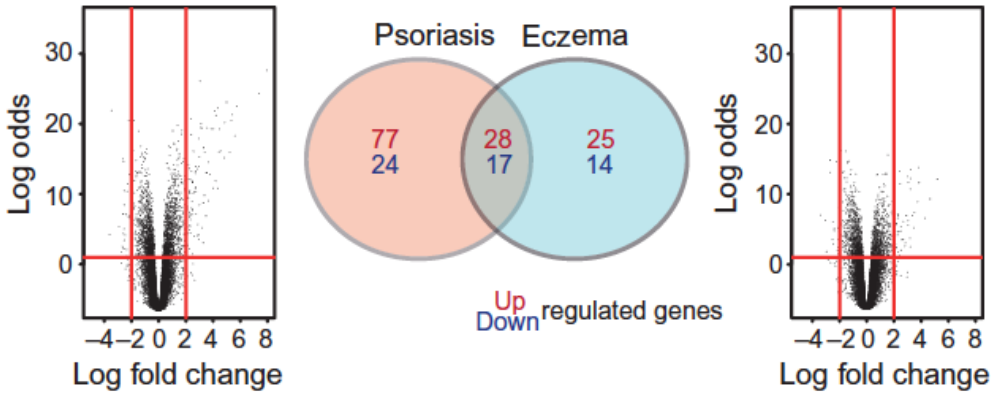


Diagnosis	With PSO	Without PSO
Arthritis	0.15	0.01
Iridocyclitis	0.38	0.04
Alopecia areata	0.46	0.12
Nail disorders	2.89	0.93
Ulcerative colitis	0.15	0.05
Atopic eczema	24.52	10.29
Impetigo	3.35	1.47
Contact dermatitis	3.66	1.73
Arterial hypertension	0.91	0.44
Vitiligo	0.23	0.11
Diabetes mellitus	0.61	0.31
Obesity	7.08	3.61
Hyperlipidaemia	1.14	0.64
Viral warts	12.11	7.29
Depression	1.29	0.77
Keratitis	0.53	0.32
Allergic rhinitis	15.16	9.70
Bronchial asthma	12.19	9.36
Herpes infection	2.74	2.12
Ischaemic heart disease	0.08	0.06
ADHD	8.07	7.14
Urticaria	2.28	2.03
Chronic bronchitis	2.21	2.10
Crohn's disease	0.00	0.07

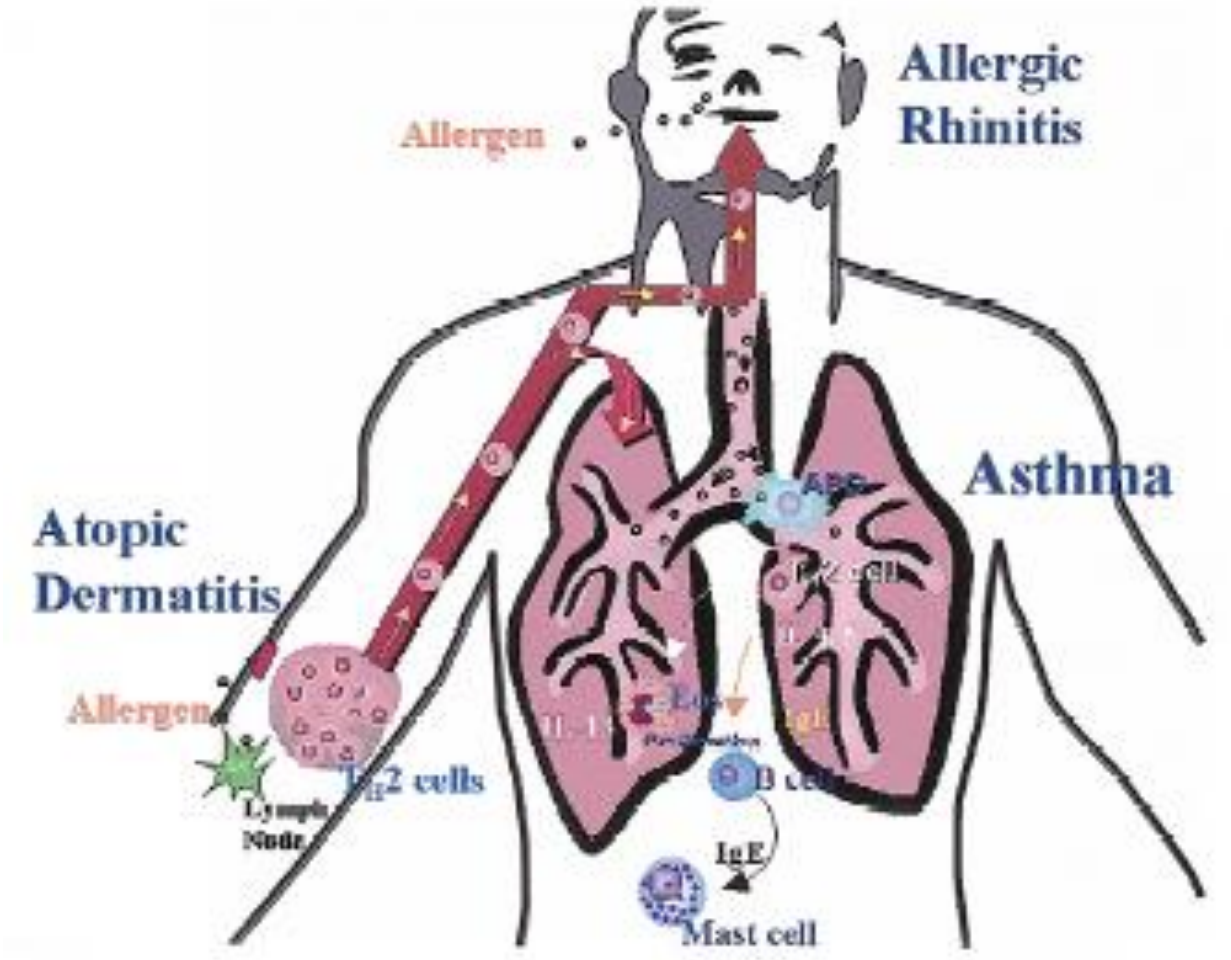
PSORIASIS

Intraindividual genome expression analysis reveals a specific molecular signature of psoriasis and eczema

Maria Quaranta,[1*] Bettina Knapp,[2*] Natalie Garzorz,[3] Martina Mattii,[1] Venu Pullabhatla,[4] Davide Pennino,[1] Christian Andres,[3] Claudia Traidl-Hoffmann,[3] Andrea Cavani,[5] Fabian J. Theis,[2,6] Johannes Ring,[3] Carsten B. Schmidt-Weber,[1] Stefanie Eyerich,[1†] Kilian Eyerich[3†‡]



“atopic march”



Spergel & Paller – J Allergy Clin Immunol 2003; 112:S118-S127

Dermatology

Original Paper

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Epidemiology and Comorbidity in Children with Psoriasis and Atopic Eczema

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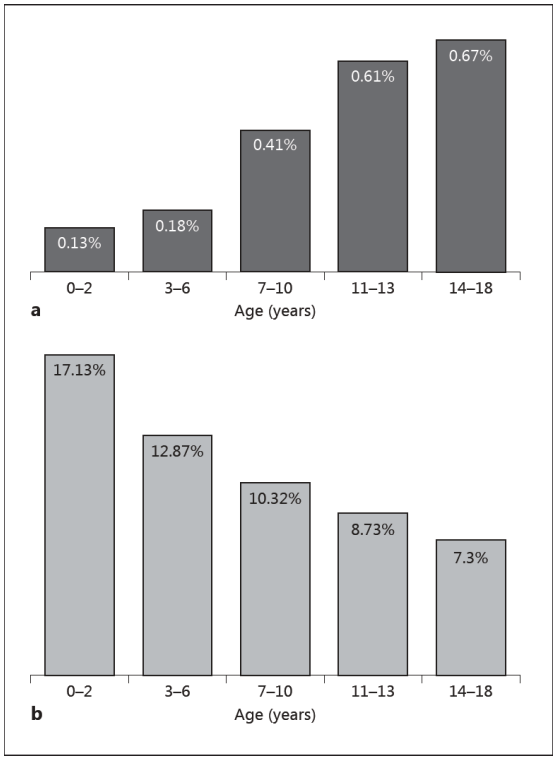
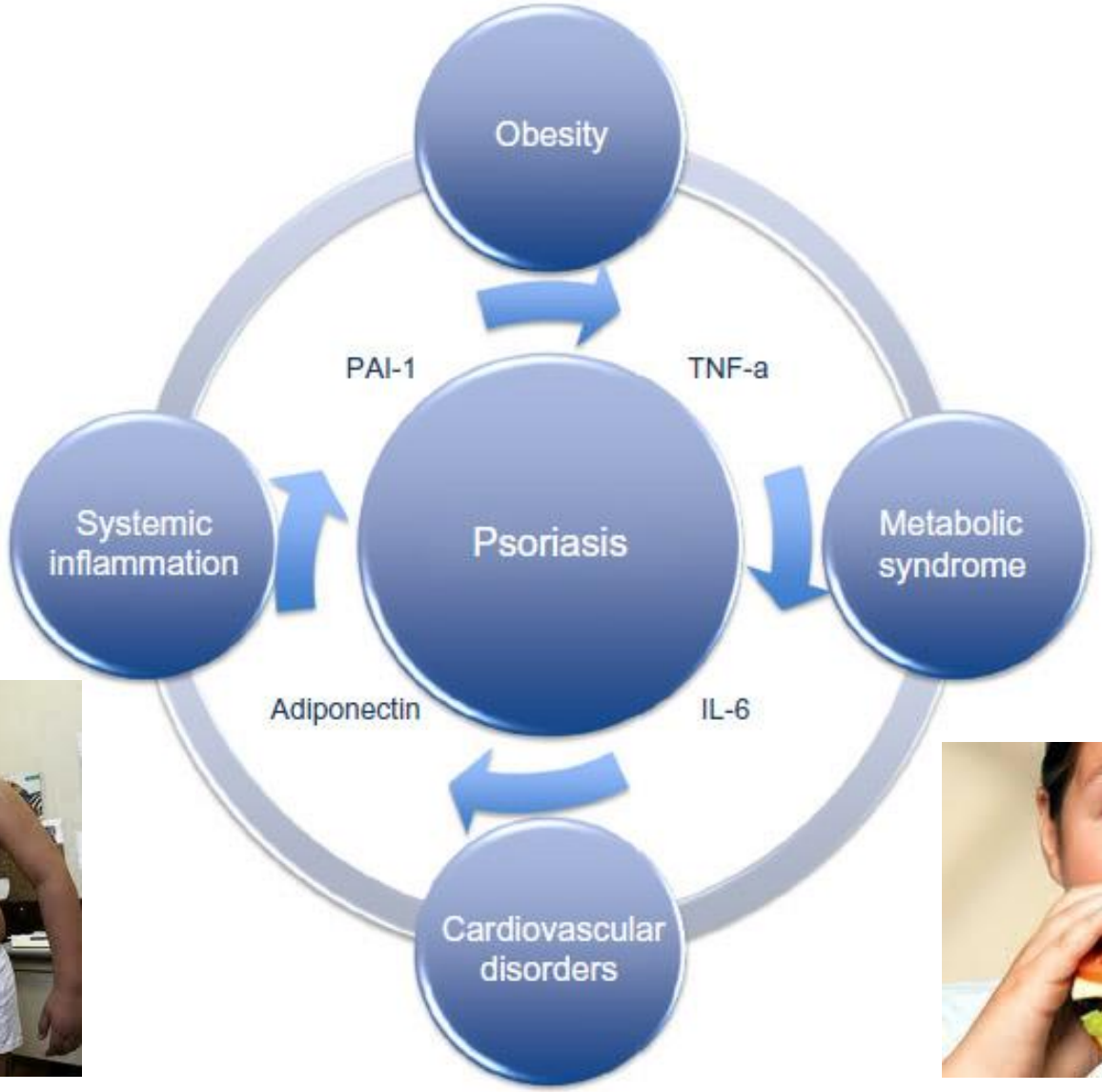
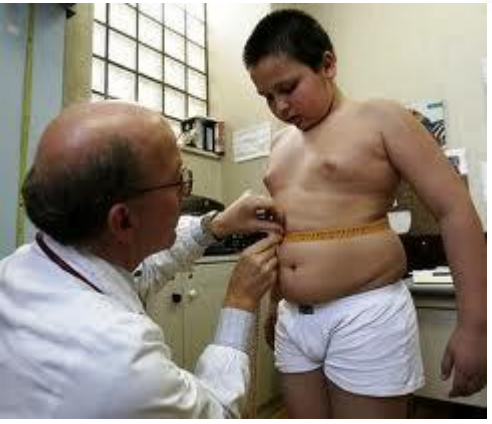


Diagnosis	With PSO	Without PSO	With AE	Without AE
Arthritis	0.15	0.01	0.01	0.01
Iridocyclitis	0.38	0.04	0.06	0.03
Alopecia areata	0.46	0.12	0.21	0.09
Nail disorders	2.89	0.93	1.29	0.78
Ulcerative colitis	0.15	0.05	0.07	0.04
Atopic eczema	24.52	10.29	100.00	0.00
Impetigo	3.35	1.47	3.57	1.07
Contact dermatitis	3.66	1.73	3.61	1.32
Arterial hypertension	0.91	0.44	0.40	0.39
Vitiligo	0.23	0.11	0.26	0.08
Diabetes mellitus	0.61	0.31	0.34	0.26
Obesity	7.08	3.61	4.11	3.10
Hyperlipidaemia	1.14	0.64	0.71	0.55
Viral warts	12.11	7.29	9.76	6.10
Depression	1.29	0.77	0.83	0.67
Keratitis	0.53	0.32	0.33	0.28
Allergic rhinitis	15.16	9.70	19.64	7.44
Bronchial asthma	12.19	9.36	19.04	7.16
Herpes infection	2.74	2.12	3.41	1.71
Ischaemic heart disease	0.08	0.06	0.08	0.05
ADHD	8.07	7.14	8.11	6.10
Urticaria	2.28	2.03	3.61	1.60
Chronic bronchitis	2.21	2.10	3.88	1.64
Crohn's disease	0.00	0.07	0.08	0.06

“psoriatic march”





Boehncke WH et al. Exp Dermatol 2011; 20:303-7

Eur J Dermatol 2014; 24(2): 229-35

Tiago TORRES[1,2]
Susana MACHADO[1,3]
Denisa MENDONÇA[4]
Manuela SELORES[1,3]

Cardiovascular comorbidities in childhood psoriasis

matory diseases. *Results:* Psoriatic children had a significantly higher prevalence and greater odds of excess adiposity compared to controls: BMI (≥85th percentile; OR 4.4; 95%CI 1.2-15.6), waist circumference (>75th percentile; OR 7.4; 95%CI 2.0-27.7) and waist-to-height ratio (>0.490; OR 4.6; 95%CI 1.3-17.0). A higher prevalence of metabolic syndrome was observed in children with psoriasis compared to controls (25% *vs* 3.7%; $P = 0.07$), and two components of the metabolic syndrome were significantly higher in the psoriasis group: waist circumference (75% *vs* 29.6%; $P = 0.002$) and the high blood pressure component (30% *vs* 3.7% $P = 0.032$). Finally, an altered and more atherogenic lipid profile was observed among psoriatic patients without excess adiposity. *Conclusion:* This study demonstrates that comorbidities known to be associated with adult psoriasis are also observed in childhood psoriasis, reinforcing the need for screening cardiovascular comorbidities in children with psoriasis and promoting healthy lifestyle choices in these patients. Moreover, it also suggests that its association with psoriasis may be in part genetically determined rather than uniquely acquired.

Association of Pediatric Psoriasis Severity With Excess and Central Adiposity. An International Cross-Sectional Study

Amy S. Paller, MD; Katherine Mercy, MD; Mary J. Kwasny, ScD; Siew Eng Choon, FRCP; Kelly M. Cordoro, MD; Giampiero Girolomoni, MD; Alan Menter, MD; Wynnis L. Tom, MD; Anne M. Mahoney, MD; Annet M. Oostveen, MD; Marieke M. B. Seyger, MD

JAMA Dermatol. 2013;149(2):166-176.

Objective To investigate the relationship of excess and central adiposity with pediatric psoriasis severity.

Design, Setting, and Participants Multicenter, cross-sectional study **of 409 psoriatic children**. Psoriasis was classified as mild (worst Physician's Global Assessment score ≤3 with body surface area ≤10%) or severe (worst Physician's Global Assessment score ≥3 with body surface area >10%). Children were enrolled from 9 countries between June 19, 2009, and December 2, 2011.

Main Outcome Measures Excess adiposity (body mass index percentile) and central adiposity (waist circumference percentile and waist to height ratio).

Results Excess adiposity (body mass index ≥85th percentile) occurred in 37.9% of psoriatic children (n = 155) vs 20.5% of controls (n = 42) but did not differ significantly by severity. The odds ratio (95% CI) of **obesity** (body mass index ≥95th percentile) overall in psoriatic children vs controls was **4.29** (1.96-9.39) and was **higher with severe** **(4.92; 2.20-10.99)** than with mild (3.60; 1.56-8.30) psoriasis, particularly in the United States (7.60; 2.47-23.34, and 4.72; 1.43-15.56, respectively). Waist circumference above the 90th percentile occurred in 9.3% of the control (n = 19), 14.0% of the mild psoriasis (n = 27), and 21.2% of the of severe psoriasis (n = 43) participants internationally; this incidence was highest in the United States (12.0% [n = 13], 20.8% [16], and 31.1% [32], respectively). Waist to height ratio was significantly higher in psoriatic (0.48) vs control (0.46) children but was unaffected by psoriasis severity. Children with severe psoriasis at its worst, but mild at enrollment, showed no significant difference in excess or central adiposity from children whose psoriasis remained severe.

Conclusions: Globally, children with psoriasis have excess adiposity and increased central adiposity regardless of psoriasis severity. The increased metabolic risks associated with excess and central adiposity warrant early monitoring and life style modification

Risks of developing psychiatric disorders in pediatric patients with psoriasis

Alexa B. Kimball, MD,[a] Eric Q. Wu, PhD,[b] Annie Guérin, MSc,[b] Andrew P. Yu, PhD,[b] Magda Tsaneva, BA,[b] Shiraz R. Gupta, PharmD,[c] Yanjun Bao, PhD,[c] and Parvez M. Mulani, PhD[c]

Boston, Massachusetts, and Abbott Park, Illinois

Background: Symptoms of psoriasis can be embarrassing and distressing, and may increase risk of developing psychiatric disorders in young people.

Objective: We sought to compare incidences of psychiatric disorders between pediatric patients with psoriasis and psoriasis-free control subjects.

Methods: Patients (<18 years) with continuous health plan enrollment 6 months before and after first psoriasis diagnosis (index date) were selected (Thomson Reuters MarketScan database, 2000-2006 [Thomson Reuters, New York, NY]). Patients with psoriasis (N = 7404) were matched 1:5 on age and sex to psoriasis-free control subjects (N = 37,020). Patients were followed from index date to first diagnosis of a psychiatric disorder (ie, alcohol/drug abuse, depression, anxiety disorder, bipolar disorder, suicidal ideation, eating disorder), end of data availability, or disenrollment. Patients with psychiatric diagnoses or psychotropic medication use before the index date were excluded. Cox proportional hazard models controlling for age, sex, and comorbidities were used to estimate the effect of psoriasis on risks of developing psychiatric disorders.

Results: Patients with psoriasis were significantly more at risk of developing psychiatric disorders versus control subjects (5.13% vs 4.07%; $P = .0001$; hazard ratio = 1.25; $P = .0001$), especially depression (3.01% vs 2.42%; $P = .0036$; hazard ratio = 1.25; $P = .0053$) and anxiety (1.81% vs 1.35%; $P = .0048$; hazard ratio = 1.32; $P = .0045$).

Limitations: Retrospective, observational studies of medical claims data are typically limited by overall quality and completeness of data and accuracy of coding for diagnoses and procedures.

Conclusions: Pediatric patients with psoriasis had an increased risk of developing psychiatric disorders, including depression and anxiety, compared with psoriasis-free control subjects. (J Am Acad Dermatol 2012;67:651-7.)

Key words: anxiety; comorbidity; depression; pediatrics; psoriasis; psychotropic medications.

Allergy EUROPEAN JOURNAL OF ALLERGY AND CLINICAL IMMUNOLOGY
EAACI
Allergy

REVIEW ARTICLE

Allergy **70** (2015) 887–896

Past, present, and future for biologic intervention in atopic dermatitis

M. D. Howell, M. L. Parker, T. Mustelin & K. Ranade

Table 2 Studies in atopic dermatitis using biologic therapies approved for other diseases

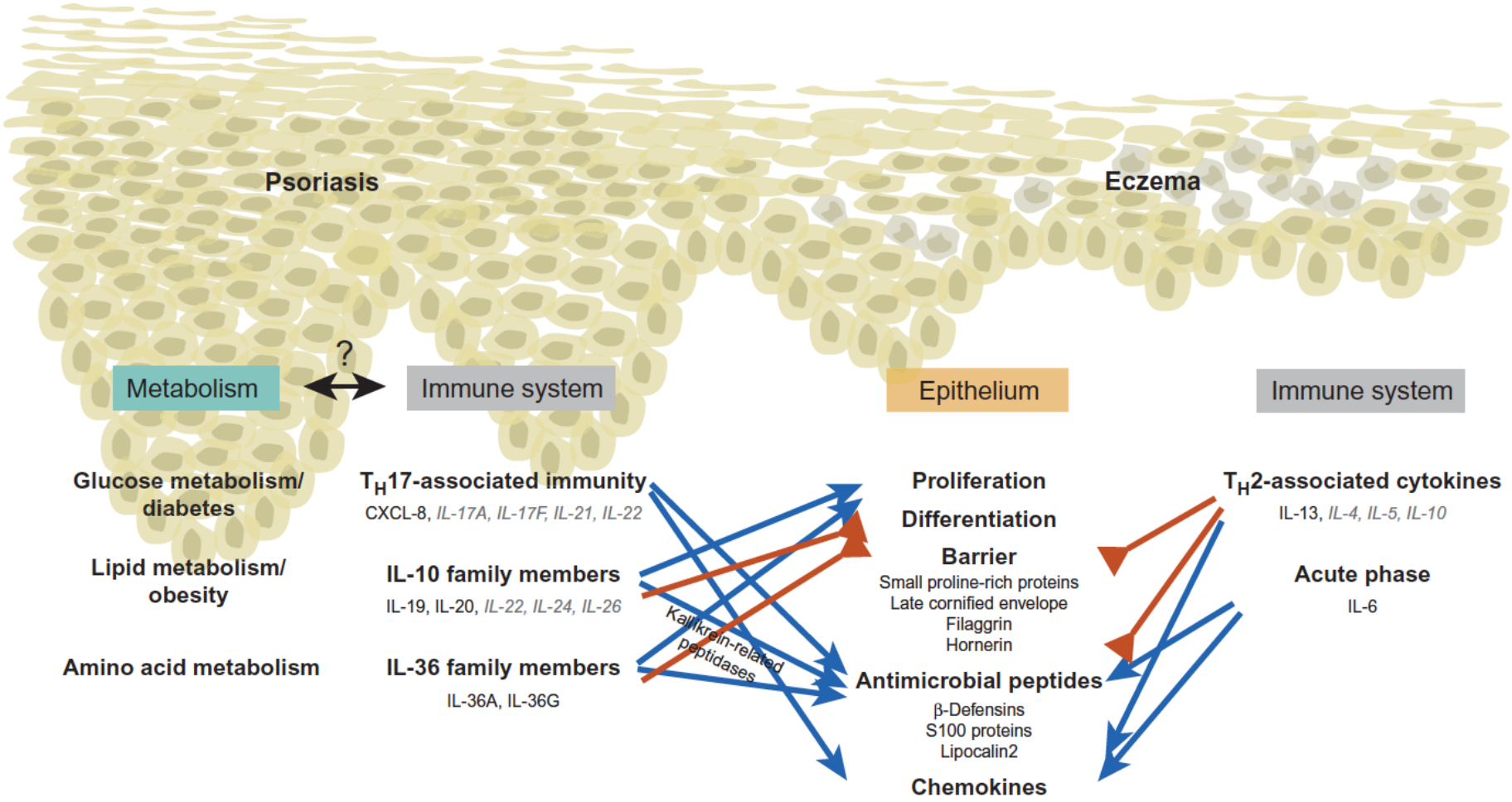
Immunologic target	Agent	Manufacturer	Approved for	References
CD2/LFA-3	Alefacept (Amevive®)	Astellas	Psoriasis	(64, 65)
CD11a/LFA-1	Efalizumab (Raptiva®)	Genentech/MerckSerono	Psoriasis*	(66, 118, 119)
CD20	Rituximab (Rituxan®)	Genentech/Biogen Idec	Chronic Lymphocytic Leukemia Non-Hodgkin's Lymphoma Rheumatoid Arthritis	(57, 58)
IgE	Omalizumab (Xolair®)	Genentech/Novartis	Asthma Chronic Idiopathic Urticaria	(52–55, 120, 121)
IL-6R	Tocilizumab (Actemra®)	Hoffman-La Roche/Genentech	Juvenile Idiopathic Arthritis Rheumatoid Arthritis	(107)
IL-12/23p40	Ustekinumab (Stelara®)	Janssen	Psoriasis Psoriatic Arthritis	(114, 115, 122)
TNF-alpha	Etanercept (Enbrel®)	Amgen	Ankylosing Spondylitis Psoriasis Psoriatic Arthritis Rheumatoid Arthritis	(104, 123)
	Infliximab (Remicade®)	Janssen	Ankylosing Spondylitis Crohn's Disease Psoriasis Psoriatic Arthritis Rheumatoid Arthritis	(103)

*Removed from the market due to risk of developing progressive multifocal leukoencephalopathy (PML).

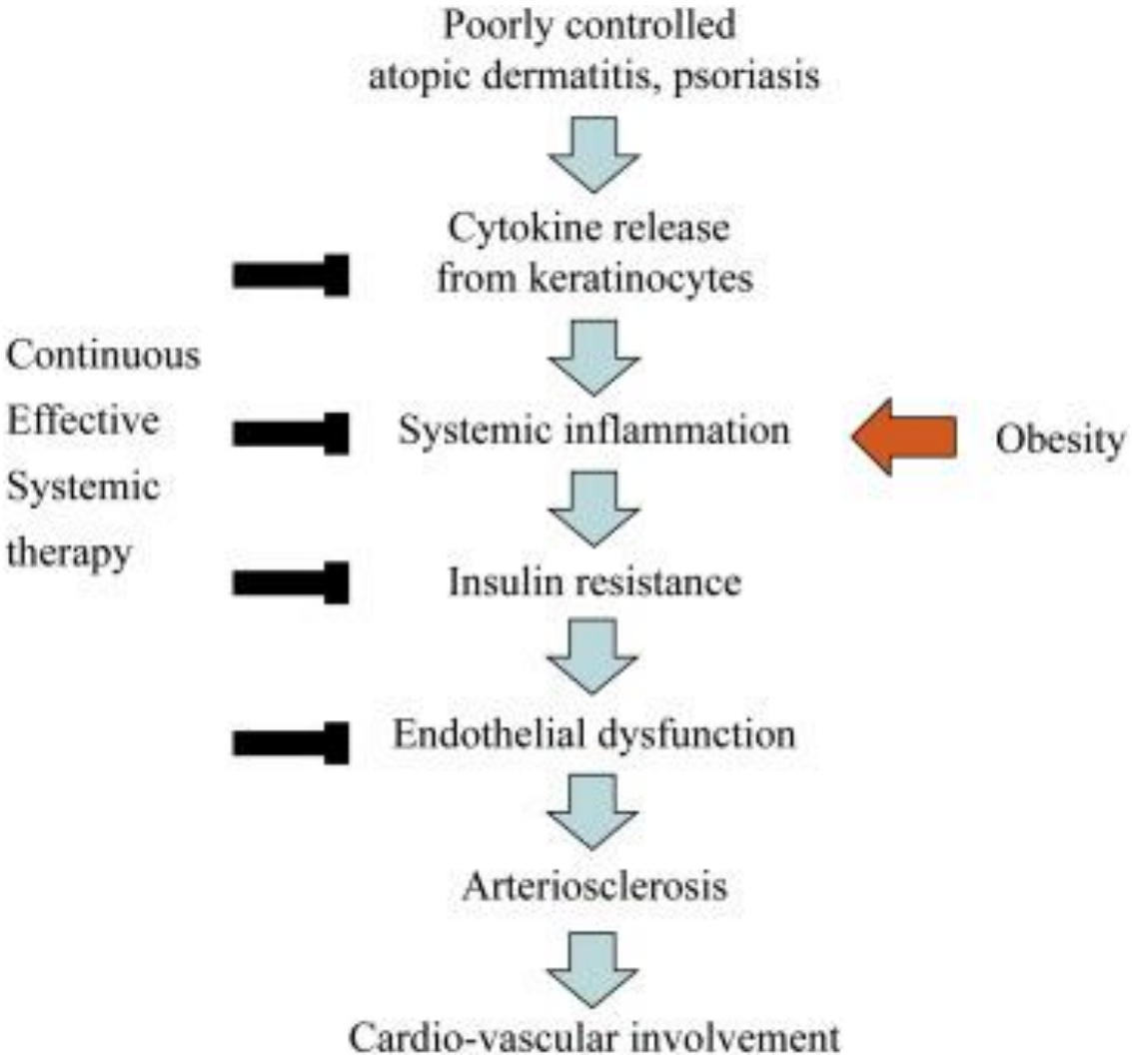
Biologics for AD and Pso

Agent	Target	Route	Drug	Phase AD	Phase Pso	ClinicalTrials.gov
Dupilumab	Il-4Ra	SC	mAb	III		NCT01949311
Ustekinumab	IL-12/23p40	SC	mAb	II	Approved	NCT01806662
Secukinumab	IL-17A	SC	mAb		Approved	
Adalimumab	Anti TNFalfa	SC	mAb		Approved	
Infliximab and biosimilar	Anti TNFalfa	EV	mAb		Approved	
Etanercept	Anti TNFalfa	SC	Fusion protein		Approved	
Apremilast	PDE4	Oral	Small molecule	II	Approved	NCT02087943
Tofacitinib	JAK	Topical	Small molecule	II	II	
Acitertina	Retinoid Acid receptor	Oral	Small molecule		Approved	
Tazarotene	Retinoid Acid receptor	Topical	Small molecule		Approved	

Nomura T, Kagashima K. J Allergy Clin Immunol 2016;138:1548-55


Psoriasis
Eczema
Metabolism
?
Immune system
Epithelium
Immune system
Glucose metabolism/ diabetes
Lipid metabolism/ obesity
Amino acid metabolism
T_H17-associated immunity
CXCL-8, IL-17A, IL-17F, IL-21, IL-22
IL-10 family members
IL-19, IL-20, IL-22, IL-24, IL-26
IL-36 family members
IL-36A, IL-36G
Kallikrein-related peptidases
Proliferation
Differentiation
Barrier
Small proline-rich proteins
Late cornified envelope
Filaggrin
Hornerin
Antimicrobial peptides
β-Defensins
S100 proteins
Lipocalin2
Chemokines
T_H2-associated cytokines
IL-13, IL-4, IL-5, IL-10
Acute phase
IL-6

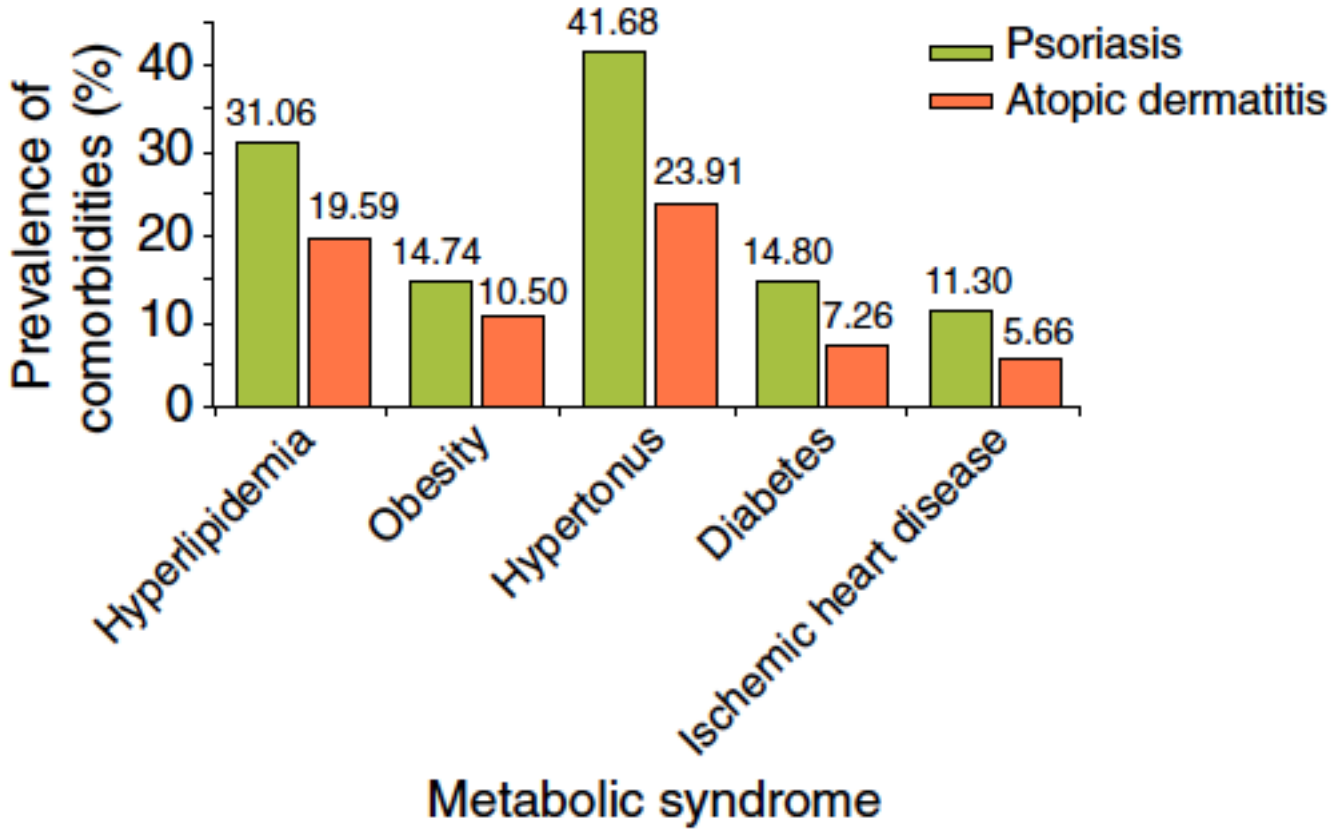
“Inflammatory skin march”



Keiichi Yamanaka, Hitoshi Mizutani

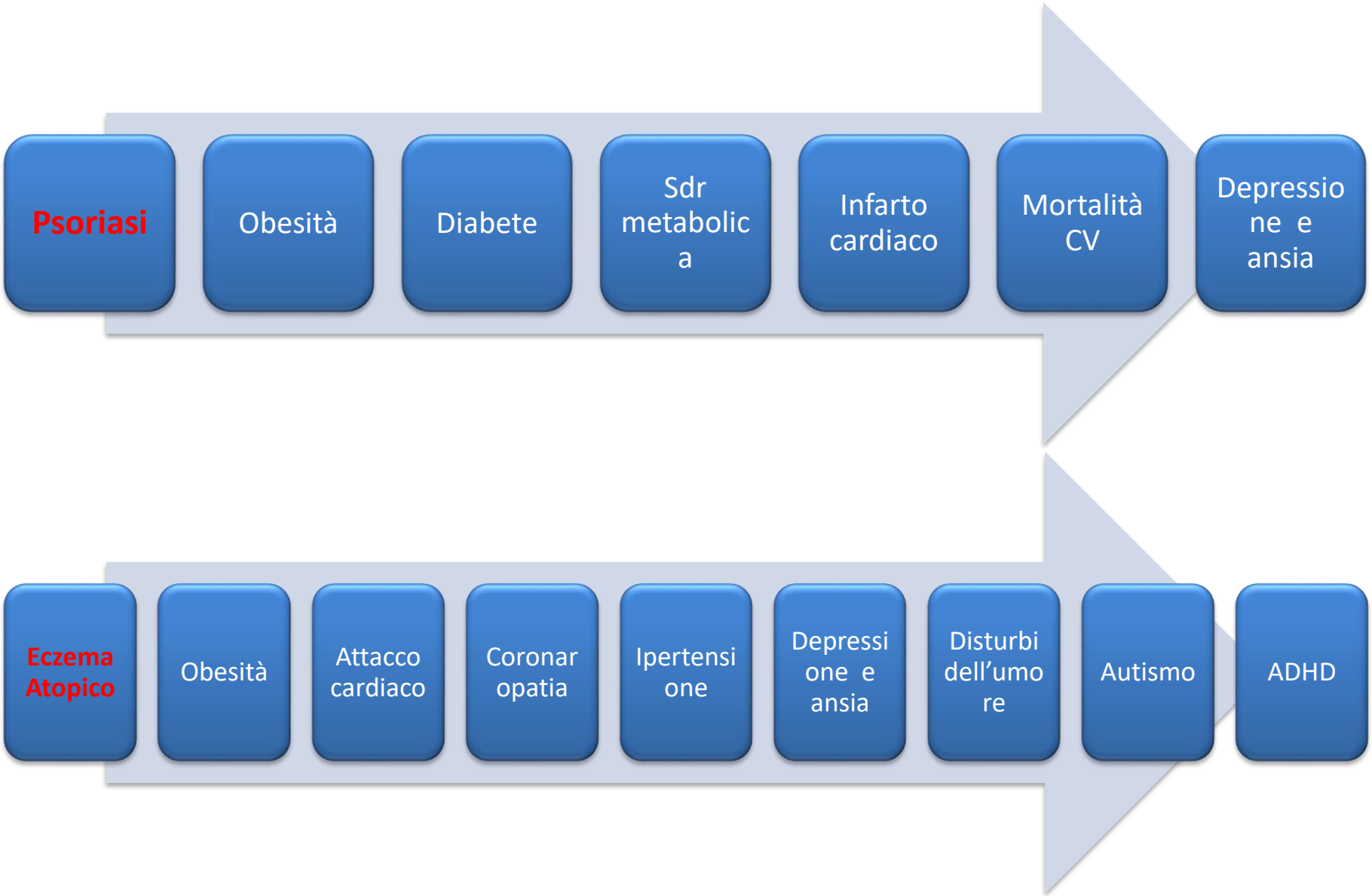
“Inflammatory skin march”: IL-1–mediated skin inflammation, atopic dermatitis, and psoriasis to cardiovascular events

Journal of Allergy and Clinical Immunology, 136, 3, 2015, 823–824



JEADV 2017, **31**, 151–157

“Inflammatory skin march”



Guttman-Yassky e et al. Exp Dermatol 2017 in press

Take home message

- L’eczema e la psoriasi possono coesistere, anche se in una piccola parte dei soggetti.
- È necessario riconoscerli e trattarli entrambi
- Le comorbidità devono essere valutate e monitorate anche in età pediatrica per garantire una vita futura soddisfacente
- Il trattamento è sempre utile anche per evitare la “marcia dell’infiammazione cronica cutanea”

GRAZIE PER L'ATTENZIONE

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