



4th Georg Rajka

International Symposium on Atopic Dermatitis ISAU

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Atopic dermatitis and dermatological doctrines

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Histoire de la dermatite atopique

Société française d'Histoire de la Dermatologie

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 **MASSON**

 **Acanthe**

Can history shed a light on the modern controversies about atopic dermatitis?

- Atopic disorders have been recognized in Ancient times
- Atopic dermatitis was named in 1933
- Before 1933, cases compatible with AD were reported, but with different names
- The descriptions and denominations followed different doctrines
- This is not a surprise, because even now, there is no consensus on the nosology of atopic dermatitis
- The current lack of consensus can be interpreted as the consequence of divergent medical doctrines, i.e allergological vs. dermatological

**Children like this one have probably
been observed since Antiquity.**



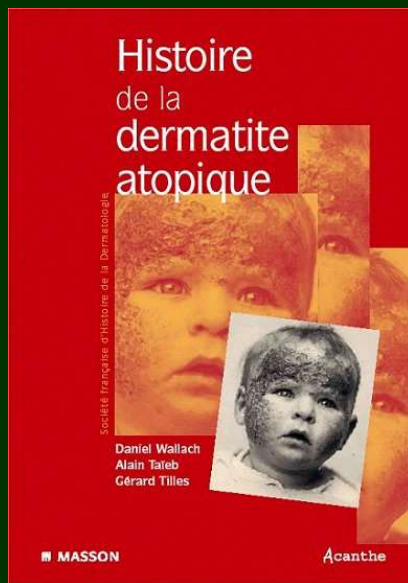
But what did the physicians see?

- An oozing disease
- A disease starting on the head and scalp
- A disease of suckling infants
- A vesicular dermatitis
- A papular, pruritic dermatitis
- Pruritus
- Skin lesions secondary to pruritus
- An allergic disease
- A hereditary, hyper-IgE disease
- A digestive disease
- The result of a conflict between the child and his/her mother
-



What do we learn from history?

- Key message :



when physicians see patients,

the disease they describe,

the way they name it,

and the way they treat it,

mainly depend upon their medical doctrine

Atopic dermatitis : three key dates

- 1796 : prurigo/eczema/...
- 1892 : diathetic prurigo
- 1933 : atopic dermatitis



Atopic dermatitis : four periods

Before 1800 : ancient (hippocratic) medicine

- **1796 : eczema / prurigo/...**

Nineteenth century : willanist clinical approach

- **1892 : diathetic prurigo**

Diathesis and immunology

- **1933 : atopic dermatitis**

What is atopic dermatitis?

Atopic dermatitis : four doctrines

Humoralist doctrine

- **1796 : eczema / prurigo/...**

Willanist doctrine

- **1892 : diathetic prurigo**

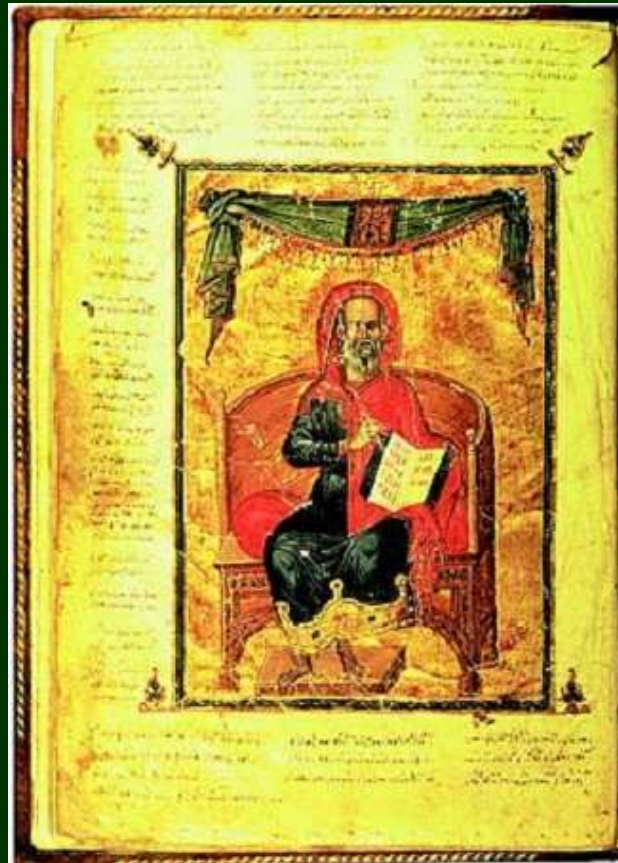
Diathetic doctrine

- **1933 : atopic dermatitis**

Allergo / Immunological doctrine

The four periods of atopic dermatitis history

First period : before 1800, skin diseases according to ancient medicine



Atopic dermatitis in ancient medicine : Mercurialis

- Girolamo Mercurialis (1530-1606), first author of a book specifically « dermatological » :

*De morbis cutaneis et omnibus
corporis humani excrementis (1572)*



De morbis cutaneis et omnibus corporis humani excrementis (1572)

Livre I : Dermatoses de la tête

Ch 1 : introduction, généralités

Ch 2 : classification des maladies de la peau de la tête

Ch 3 : chutes de cheveux

Ch 4 : alopécies

Ch 5 : calvitie

Ch 6 : canitie

Ch 7 : pédiculose

Ch 8 : porrigo (pityriasis)

Ch 9 : achore et favus

Ch 10 : teigne

Ch 11 : vésiculo-pustules, ulcères superficiels, sycosis, exanthèmes

Livre II : Dermatoses du corps

Ch 1 : généralités sur la classification

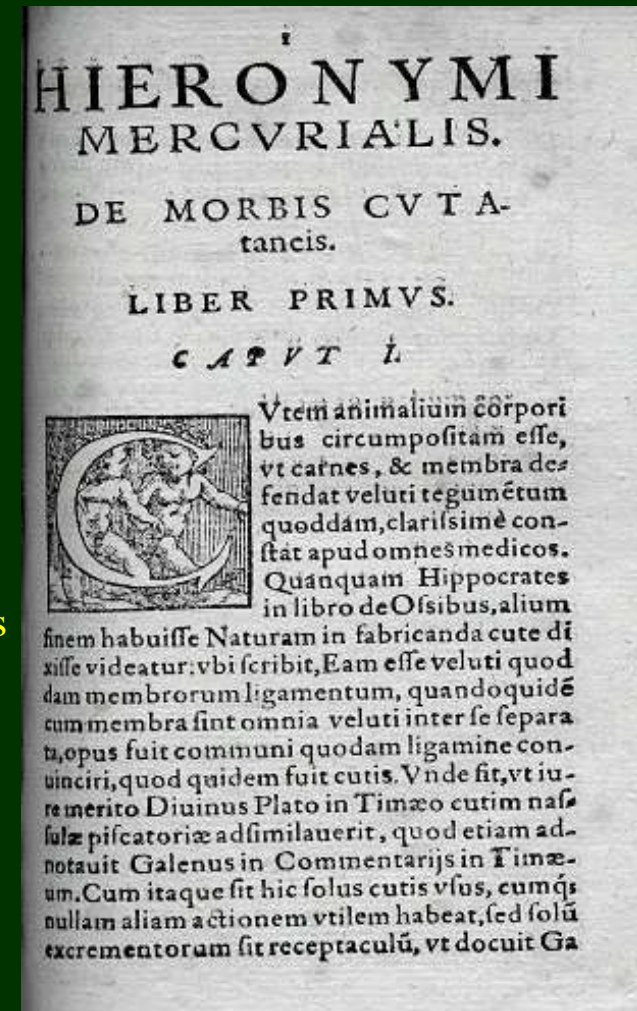
Ch 2 : dépigmentations, troubles pigmentaires

Ch 3 : prurit

Ch 4 : gale

Ch 5 : lèpre

Ch 6 : lichens



(Personal translation from Latin)

De morbis cutaneis et omnibus corporis humani excrementis (1572)

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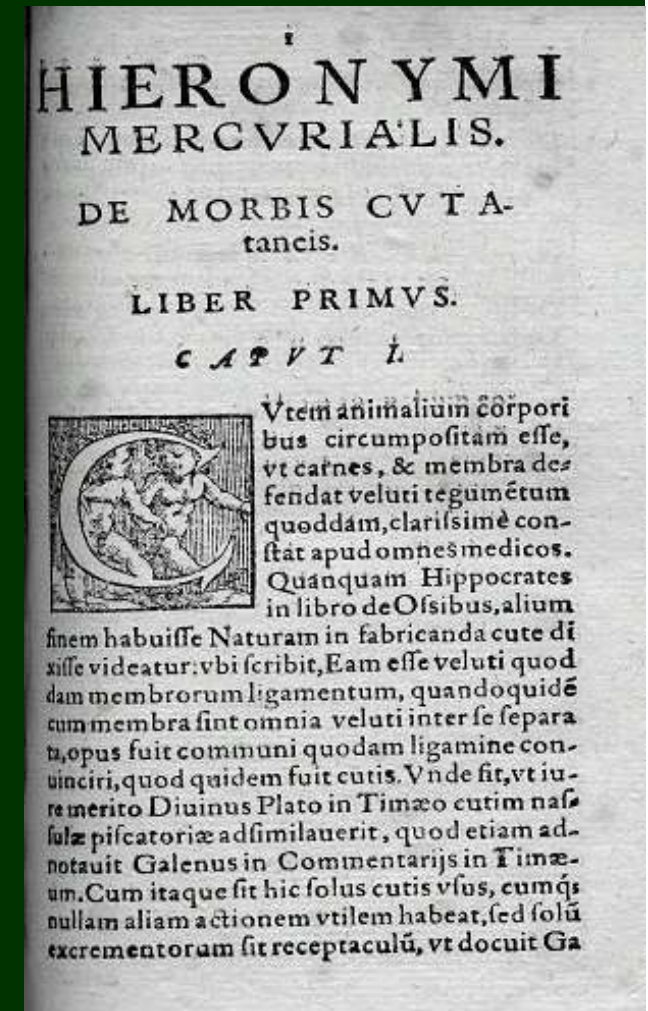
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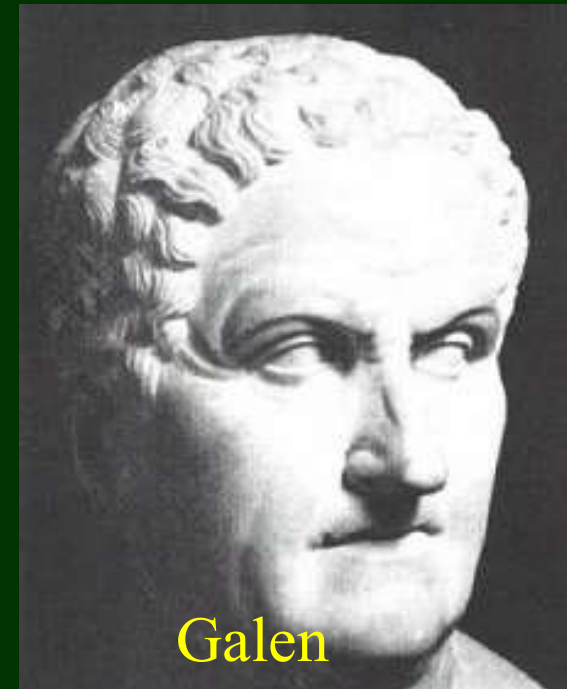
Ch 5 : lèpre

Ch 6 : lichens



Mercurialis' humoralist doctrine

- Skin disorders were viewed as a route of elimination of humors
- Phlegmatic diseases were more prevalent in winter
- Classification : head – body
- Among scalp dermatoses :
 - Achores : scalp oozing conditions
 - Head ulcer
 - Mucous tineia

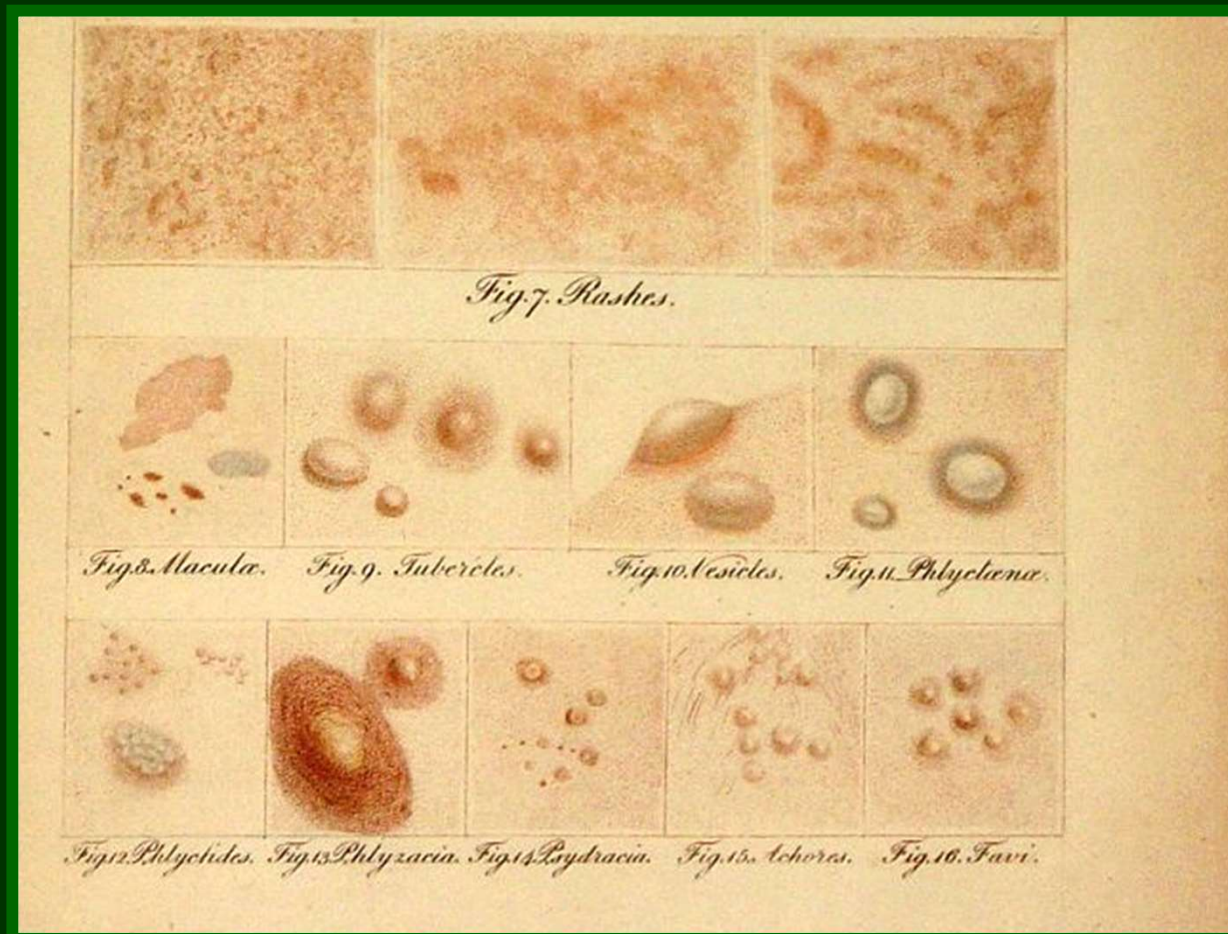


Achores according to Mercurialis

- Lesions of the scalp, from which humors eliminate
- Background :
 - Infants (excretions accumulate in utero)
- Etiology : the « infectious » milk from the mother / wet nurse
- Diagnosis :
 - Pruritus, then lesions and oozing
 - Color and taste characteristic
- Treatment
 - The wet nurse's diet
 - Very few drugs



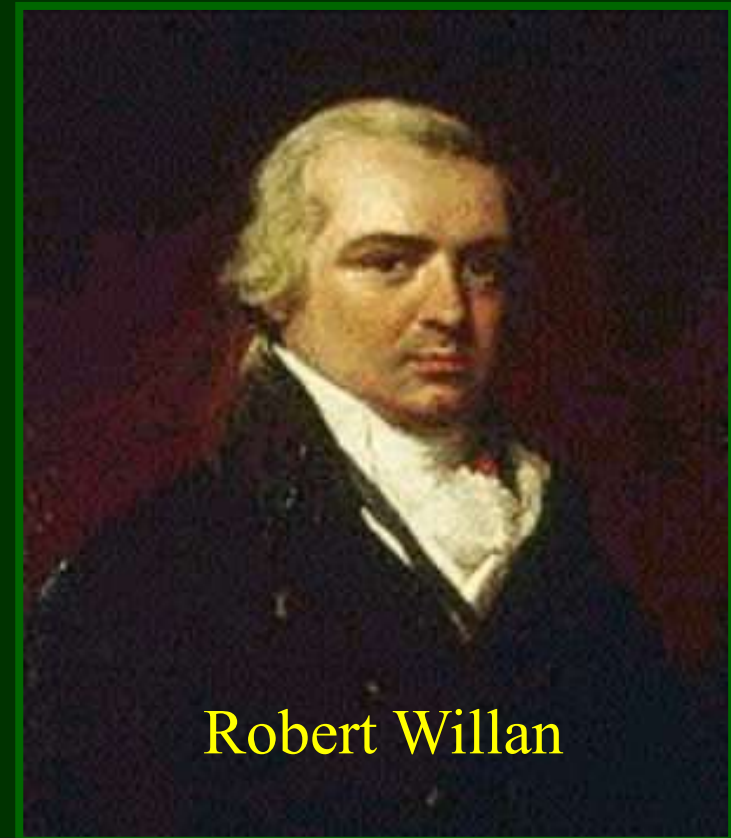
Second period : willanism



Willan-Bateman :

« Birth of the clinics » in dermatology

- Robert Willan (1757-1812) :
 - Physician of a public dispensary
 - On cutaneous diseases (1798-1808)
- Thomas Bateman (1778-1821)
 - Faithful and talented friend, pupil, follower
 - A practical synopsis
 - Delineations ...



Robert Willan

Willan-Bateman :

after Plenck, a classification on a semiological basis

Order I : Papules

Strophulus
Lichen
Prurigo

Order II : Squamae

Lepra
Psoriasis
Pityriasis
Ichtyosis

Order III : Exanthemas

Rubeola
Scarlet fever
Urticaria
Roseola
Purpura
Erythème
Erysipela

Order IV : Bullae

Order V : Pustules

Order VI : Vesicles

Pemphigus
Pompholyx

Impetigo
Porrigo
Ecthyma
Smallpox
Scabies

Varicella
Vaccinia
Herpes
Rupia
Miliaria
Eczema
Aphtae

Order VII : Tubercles

Phyma
Warts
Molluscum
Vitiligo
Acne
Sycosis
Lupus
Elephantiasis
Framboesia

Order VIII : Macules

Ephelis
Naevus

Atopic dermatitis in Willan/Bateman's works

- Where is it?
- Was « atopic dermatitis » described as an autonomous entity?
- If not, why did not Willan/Bateman identify atopic dermatitis?

Willan-Bateman :

descriptions compatible with atopic dermatitis

Order I : Papules

Strophulus

Lichen

Prurigo

Order II : Squamae

Lepra

Psoriasis

Pityriasis

Ichtyosis

Order III : Exanthemas

Rubeola

Scarlet fever

Urticaria

Roseola

Purpura

Erythème

Erysipela

Order IV : Bullae

Order V : Pustules

Order VI : Vesicles

Pemphigus

Pompholyx

Impetigo

Porrigo

Ecthyma

Smallpox

Scabies

Varicella

Vaccinia

Herpes

Rupia

Miliaria

Eczema

Aphtae

Order VII : Tubercles

Phyma

Warts

Molluscum

Vitiligo

Acne

Sycosis

Lupus

Elephantiasis

Framboesia

Order VIII : Macules

Ephelis

Naevus

Strophulus according to Willan-Bateman



Strophulus
intertinctus

“the Strophulus is a papulous eruption, peculiar to infants, and exhibiting a variety of forms, ...

« Strophulus confertus : An eruption of numerous papules, varying in their size, appears on different parts of the body in infants, during dentitionand has then been denominated the Tooth Rash »

“About the fourth or fifth month after birth, an eruption of this kind takes place, in most infants, on the cheeks, and sides of the nose, extending sometimes to the forehead and arms, sometimes, though less frequently; to the trunk of the body”



Strophulus confertus

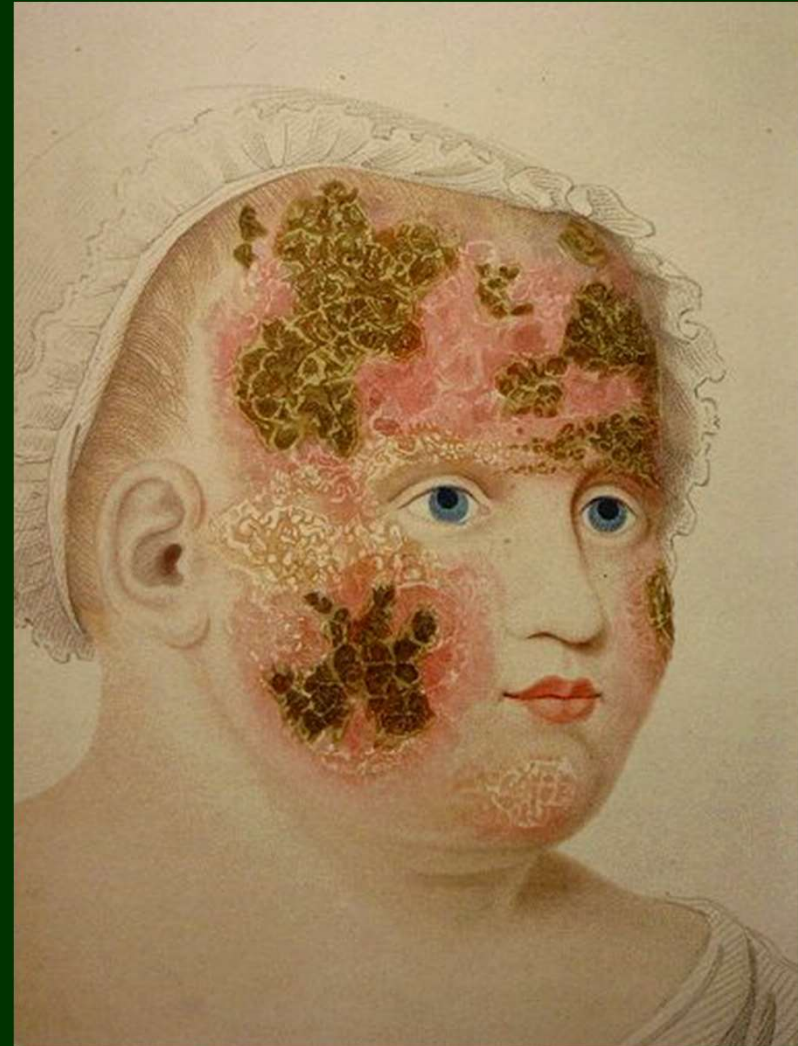
Lichens according to Willan-Bateman

- “an extensive eruption of Papulae, affecting adults, connected with internal disorder, usually terminating in Scurf ; recurrent ; non contagious”.
- Seven forms



Porriigo larvalis willani

- In the order of the pustules
- “..., or *Crusta lactea* of authors, is almost exclusively a disease of infancy. It commonly appears first on the forehead and cheeks, in an eruption of minute and whitish aches, which are crowded together, upon a red surface. These pustules soon break, and discharge a viscid fluid, which concretes into thin yellowish or greenish scabs “.
- Porriigo # tineia # favus # achore = an oozing / crusty scalp dermatosis
- Pruritus is important



Eczema according to Willan-Bateman

- Sixth gender of the Order of vesicular dermatoses.

«The eczema is characterized by an eruption of small vesicles, on various parts of the skin, usually set close or crowded together, with little or no inflammation round their bases, and unattended by fever. It is not contagious. ... ».

- *« usually secondary to an irritation, of external or internal origin, and may be produced by a great variety of irritants, in persons whose skin is constitutionally very irritable».*

solar



impetiginized



rubrum



Atopic dermatitis in Willan/Bateman's works

- Where is it?

Not among eczemas,
but among varieties of papular/ pustular diseases

- Was « atopic dermatitis » described as an autonomous entity?

No

- If not, why did not Willan/Bateman identify atopic dermatitis?

Why did willanists fail to identify atopic dermatitis?

- Because AD does not have only one primary (elementary) lesion
 - At a given time
 - During the course of the disease

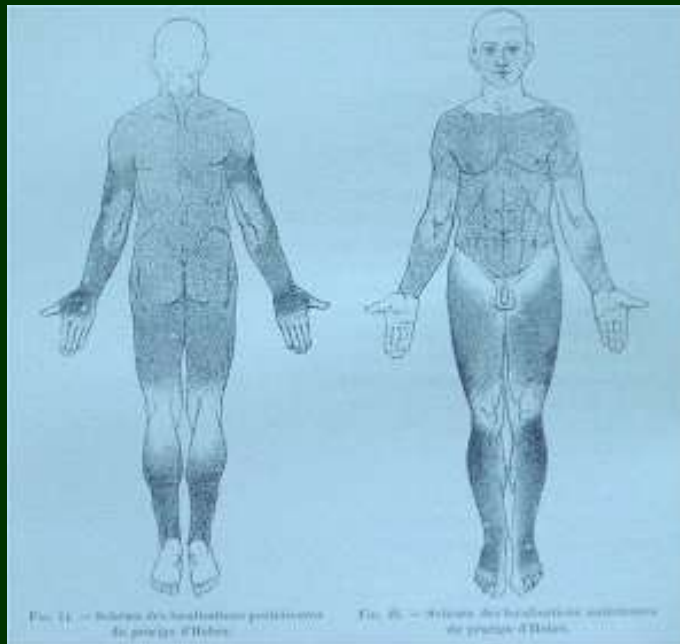
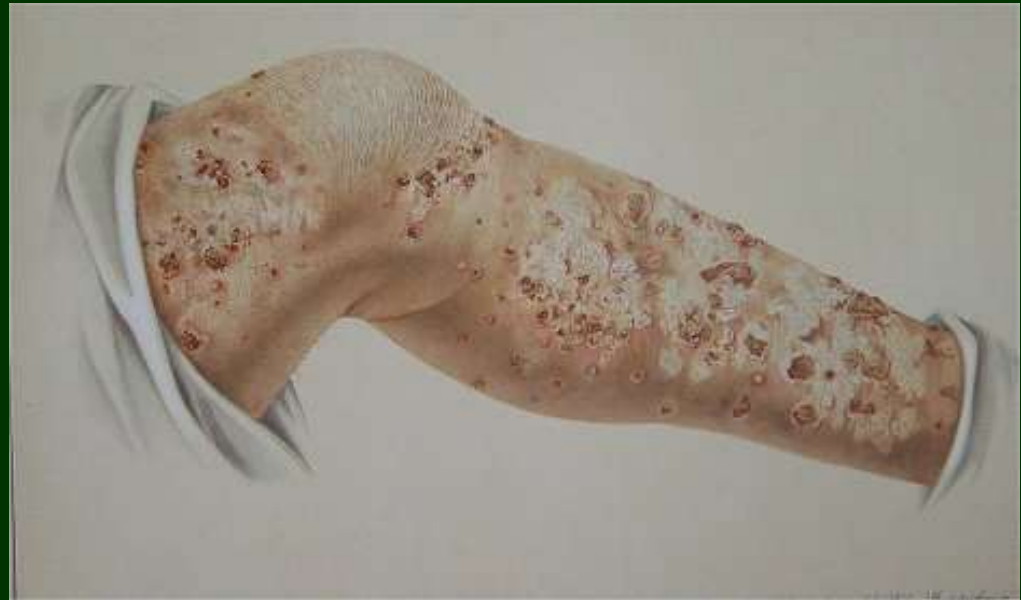


**Third period :
from papular prurigo (Hebra)
to diathetic prurigo (Besnier)**



Hebra's prurigo

« In all cases, the first phenomenon consists in the presence of subepidermal papules ... »

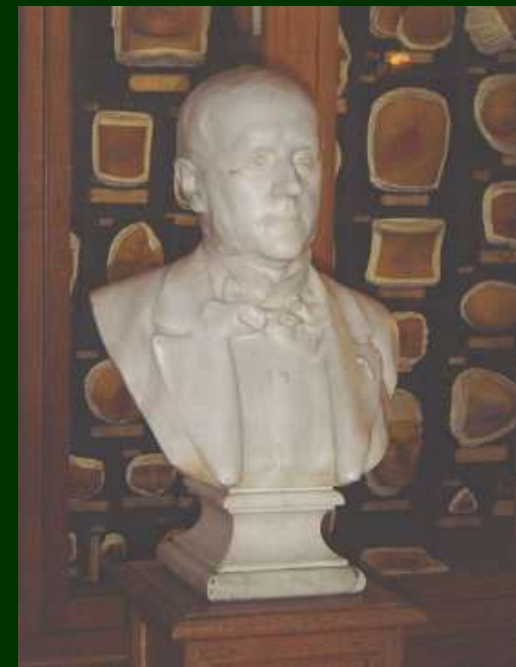


Prurigo agria seu ferox mihi.

1892 : Ernest Besnier

« gets free from the willanist tyranny »

- **Besnier Ernest. Première note et observations préliminaires pour servir d'introduction à l'étude des prurigos diathésiques**
Ann Dermatol Syphil. Troisième série, tome III, 1892 : 634-648.
- **« Their first symptom and main symptom is pruritus »**
- **« In many cases, the pathological process leaves the skin, to have visceral localisations including emphysema, bronchial asthma, hay fever, end more rarely digestive troubles »**



Fourth period : immunology meets eczema



**A conceptual challenge :
to link infantile eczema and chronic prurigo**



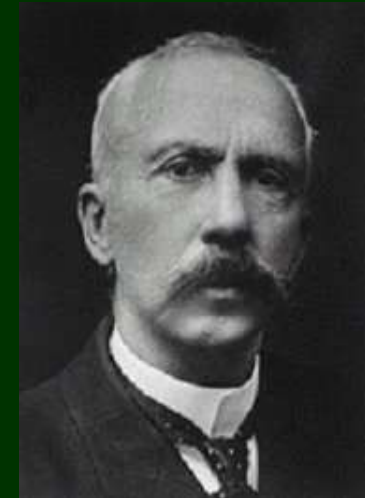
Infantile, constitutional eczema

Hebra's prurigo agria



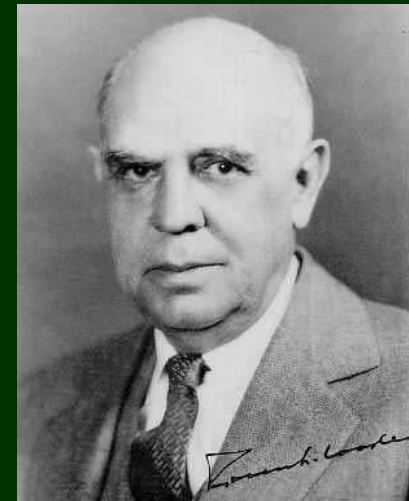
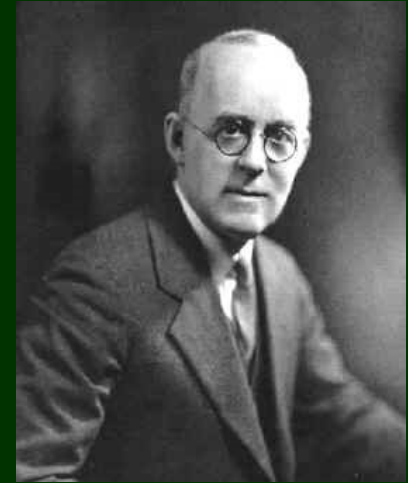
Advances in immunological hypersensitivities

- 1902 : Richet and Portier : anaphylaxis, an experimental concept.
- 1906 : von Pirquet : allergy : a change in clinical reactivity
- 1906 (Wolff-Eisner) – 1910 (Meltzer) : hay fever and asthma are allergic diseases
- 1916 (Blackfan) : infantile eczema and allergy to food proteins



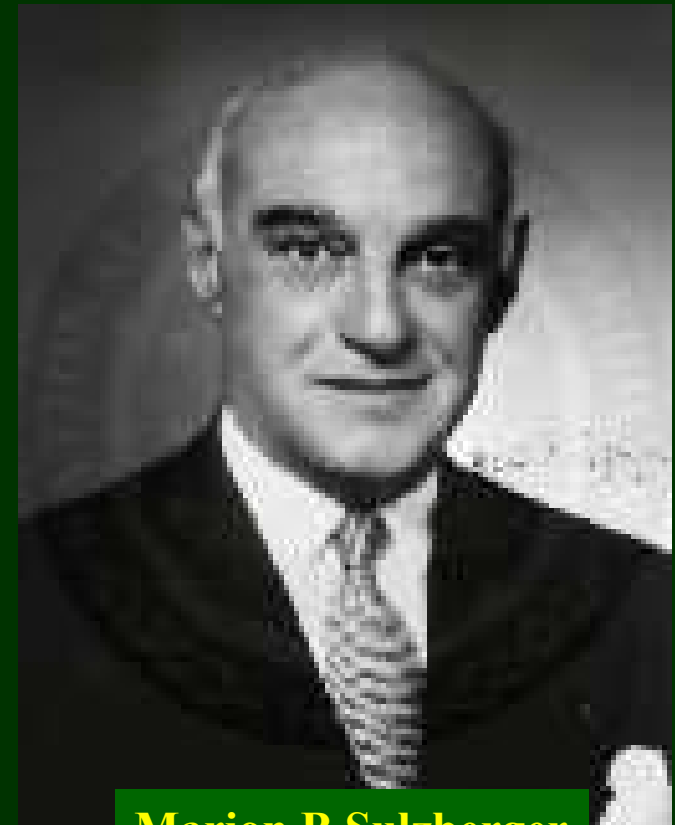
Classification of hypersensitivities, Coca and Cooke, 1923

- **Hypersensitivity**
 - **Normal (usual)**
 - **Dermatitis venenata (contact eczema)**
 - **Serum sickness**
 - **Abnormal**
 - **Anaphylaxis**
 - **Hypersensitivity of infections (tuberculosis, others)**
 - **Atopy : hereditary hypersensitivity to environmental antigens**



Wise and Sulzberger, 1933 :
« This is probably best called atopic dermatitis »

- Among previous denominations
 - Eczematoïd exsudative, infantile eczema , asthma-eczema, asthma-prurigo, flexural eczema, Besnier's prurigo, neurodermatitis, lichenifications, generalized pruritus with lichenification, ...
- Wise and Sulzberger pick up a group of chronic eczemas with positive skin tests,
- Which « is probably best called **atopic dermatitis** »,
- And for which some criteria may be defined



Marion B Sulzberger
1895-1983

The 1933 definition of atopic dermatitis

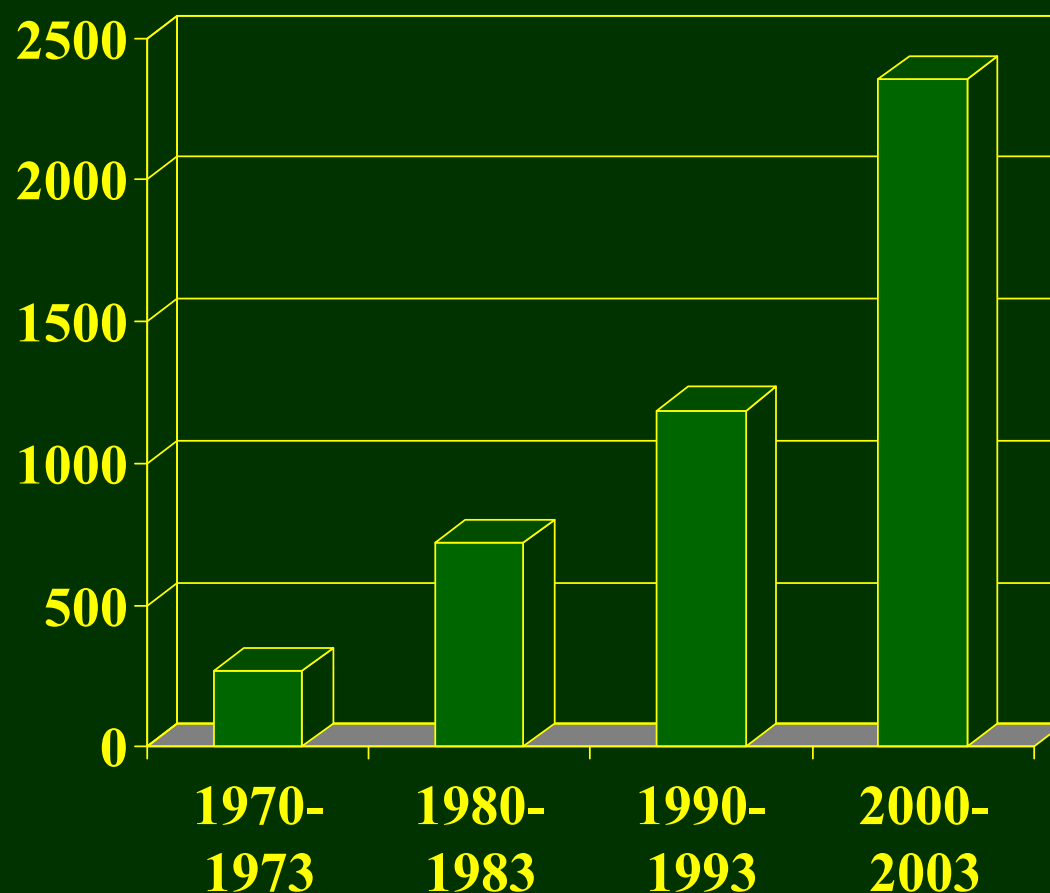
(Wise F, Sulzberger MB. 1933 Year Book of Dermatology and Syphilology ; 38-39.)

- 1 – Atopic family history ;**
- 2 – Antecedent infantile eczema ;**
- 3 – Localization in antecubital and popliteal spaces, the anterior portions of the neck and chest and the face, particularly the eyelids ;**
- 4 – A greyish or brownish coloration of the skin**
- 5 – The absence of true vesicles, clinically and histologically**
- 6 – Vasomotor instability or irritability**
- 7 - Negativity of patch tests to contact irritants (particularly adhesive)**
- 8 - Many positive reactions of immediate wheal type to scratch or intradermal testing**
- 9 – The presence of many reagins in the blood serum.**

**Since 1933, an unsolved question :
what is really atopic dermatitis?**



1933-2001 : a growing interest for atopic dermatitis



Sept 2004-Sept 2005 :
One year, 770 citations

■ Medline citations

Atopic dermatitis, 1933-2001 : progress

- Unified terminology
- Validated diagnostic criteria
 - Hanifin / Rajka
 - UK Working Party
- A clinical scoring for severity, widely accepted
 - SCORAD
- An efficient therapy
 - Topical steroids



Atopic dermatitis, 1933-2001 : unsolved questions

- Terminology
 - Dermatitis or eczema?
 - intrinsic, atopiform, non atopic, entopic, ...
- Role of IgE-mediated allergy
 - For the diagnosis
 - For understanding the pathophysiology
 - For the management
 - Diet, food eliminations, probiotics, hyposensitizations, ...
- Confidence in topical steroid therapy
- And in rational medicine



The 2005 debate

- Is atopic dermatitis defined by clinical criteria? (Hanifin-Rajka's, UKWP's)?

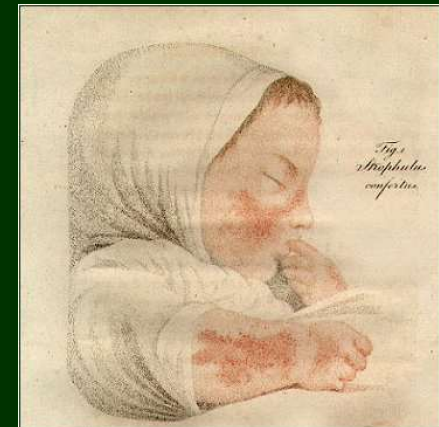
Dermatological doctrine :
AD is a skin disorder
IgE are not part of the definition and
are not routinely assayed

- Or is atopy confined to IgE sensitization?

Immuno-allergological doctrine :
IgE define atopy
AD is the cutaneous component of the atopic disease

Conclusion : historical conceptions of atopic dermatitis

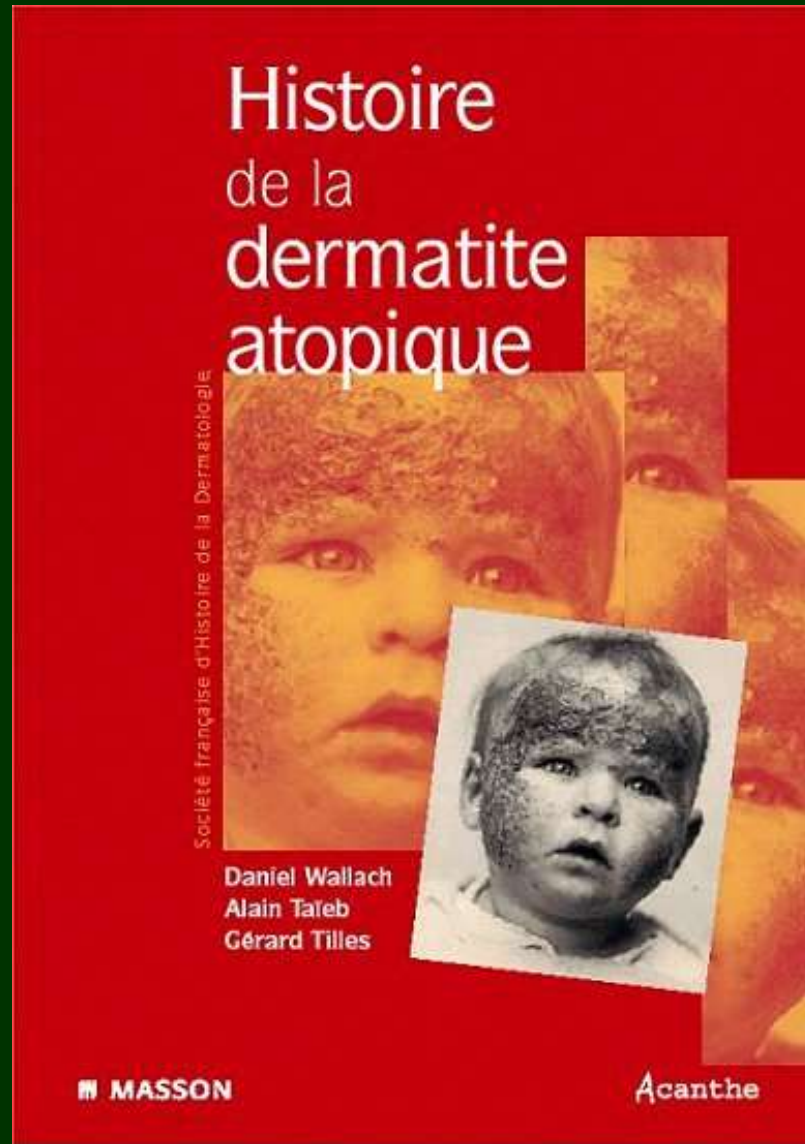
- A reflection of internal disorders
- A skin disease
- A diathesis
- An allergological disorder



**Will the 4th Georg Rajka ISAD
resolve all the questions?**



If not, a suggested reading (in French)



Thank you for your attention