



Síndrome de Behcet

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Contenido



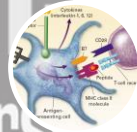
Definición



Historia



Epidemiología



Fisiopatología



Manifestaciones clínicas



Diagnóstico



Tratamiento

Definición

La enfermedad de Behcet es un desorden inflamatorio multisistémico crónico

- Enfermedad vs. síndrome
- Etiología desconocida

Úlceras orales/
genitales

Lesiones en piel

Lesiones oculares

Úlceras
gastrointestinales

Lesiones
vasculares

SNC

Historia





Benediktos Adamantiades

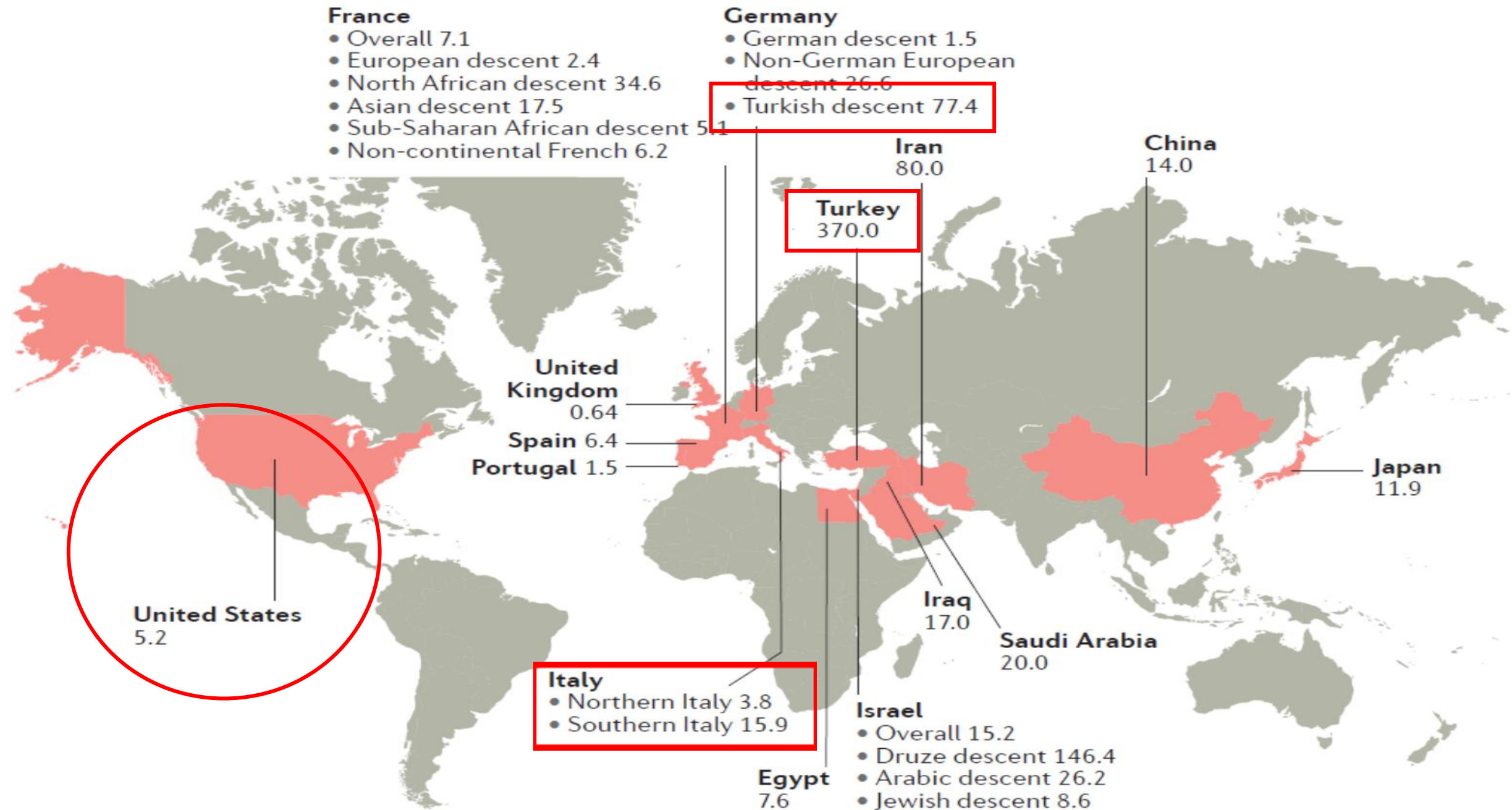


Hulûsi Behçet

Epidemiología







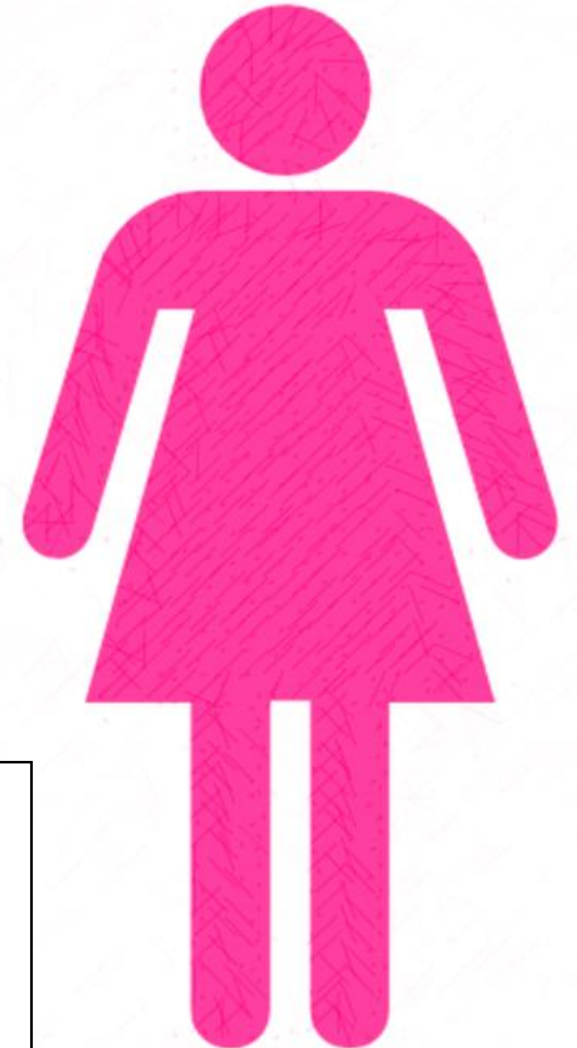


H = M

20-30
años



<200 casos
(2012)





Fisiopatología

Autoinflamación vs. autoinmunidad

Autoinflammation

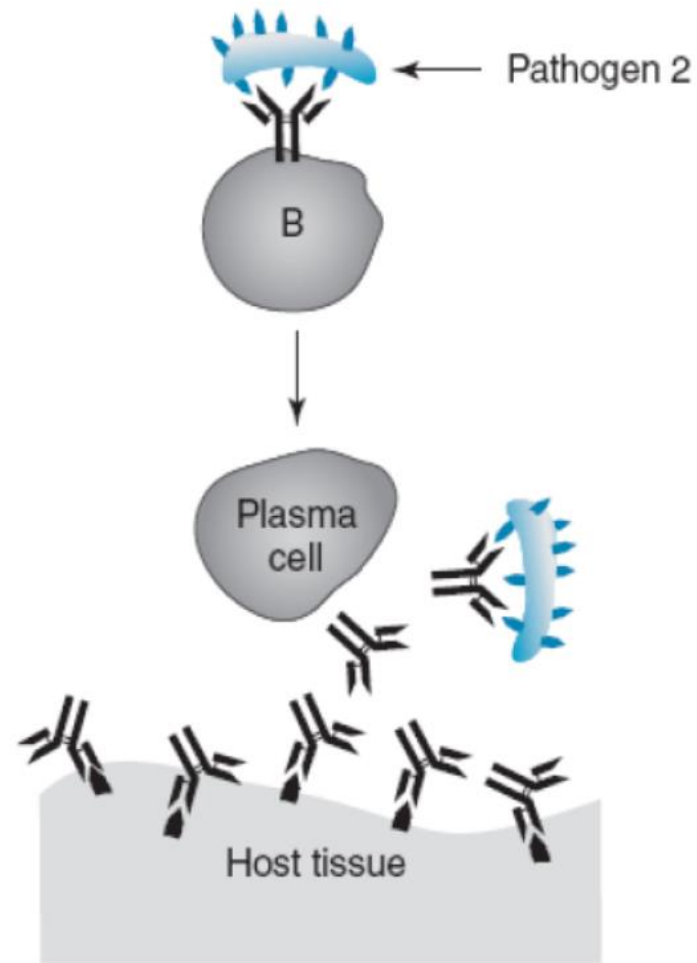
Autoimmunity

INNATE immune system	Immune dysregulation	ADAPTIVE immune system
Monocytes, macrophages, neutrophils	Predominant cell types	T cells, B cells
IL-1, TNF, IFN $\alpha\beta$, IL-12, IL-23, (IL-17), IL-18	Cytokine targets used therapeutically	IFN γ , IL-4, (IL-17), IL-6
Neutrophil- and macrophage-mediated organ damage	Pathogenesis of organ damage	Autoantibody- or autoantigen-specific T cell-mediated organ damage
IL-1-mediated monogenic autoinflammatory diseases	Disease examples	Thyroiditis, rheumatoid arthritis, SLE, ALPS

Annu. Rev. Med. 2014. 65:223–44

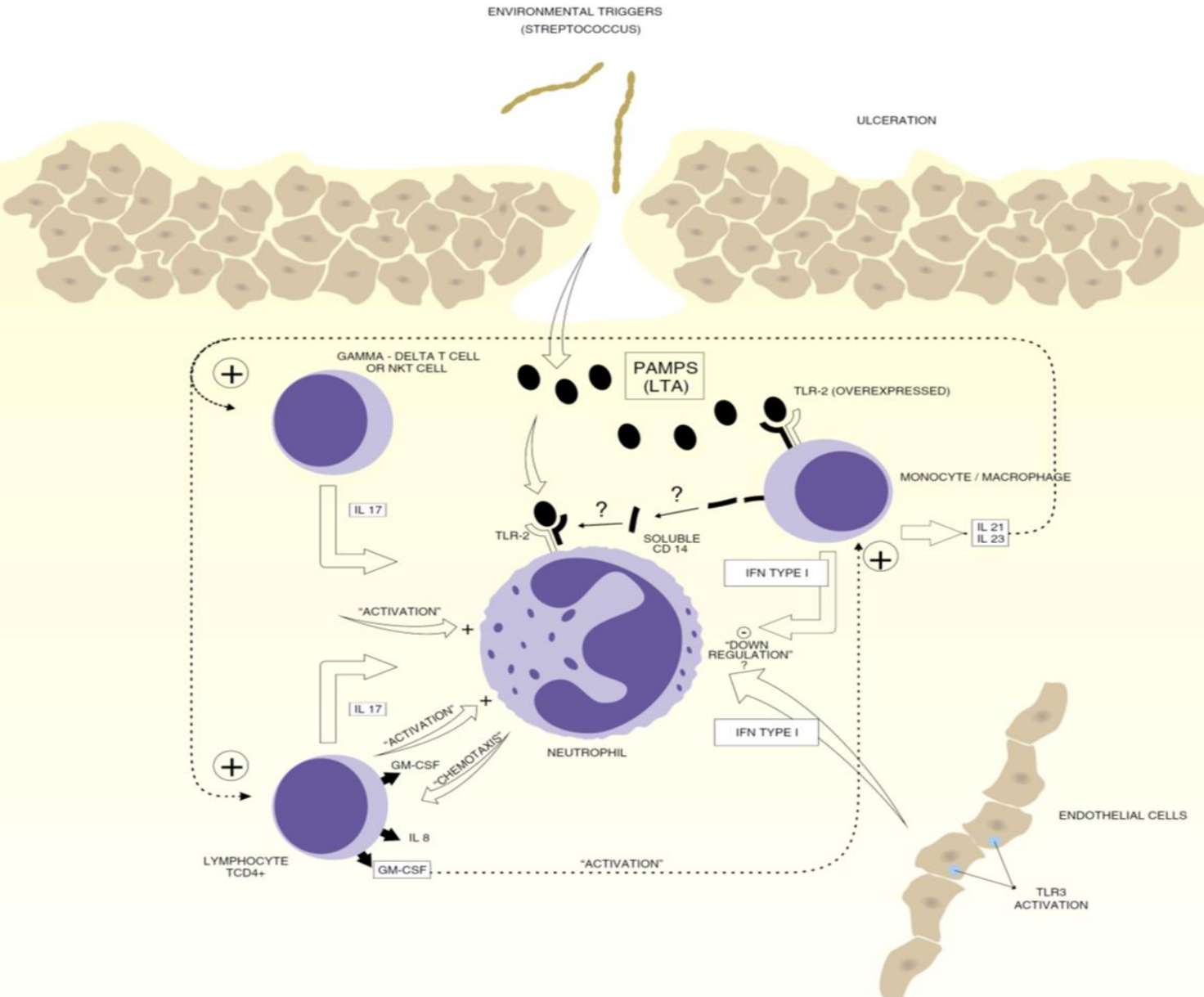
No hay elementos suficientes para autoinmunidad

- HSP – mímica molecular
- Anticuerpos contra las proteínas de choque térmico de *Streptococcus spp.* se han mostrado recientemente en Behçet



Tomado de clase:
"mecanismos de autoinmunidad". Módulo inmunología

Elementos a favor de autoinflamación



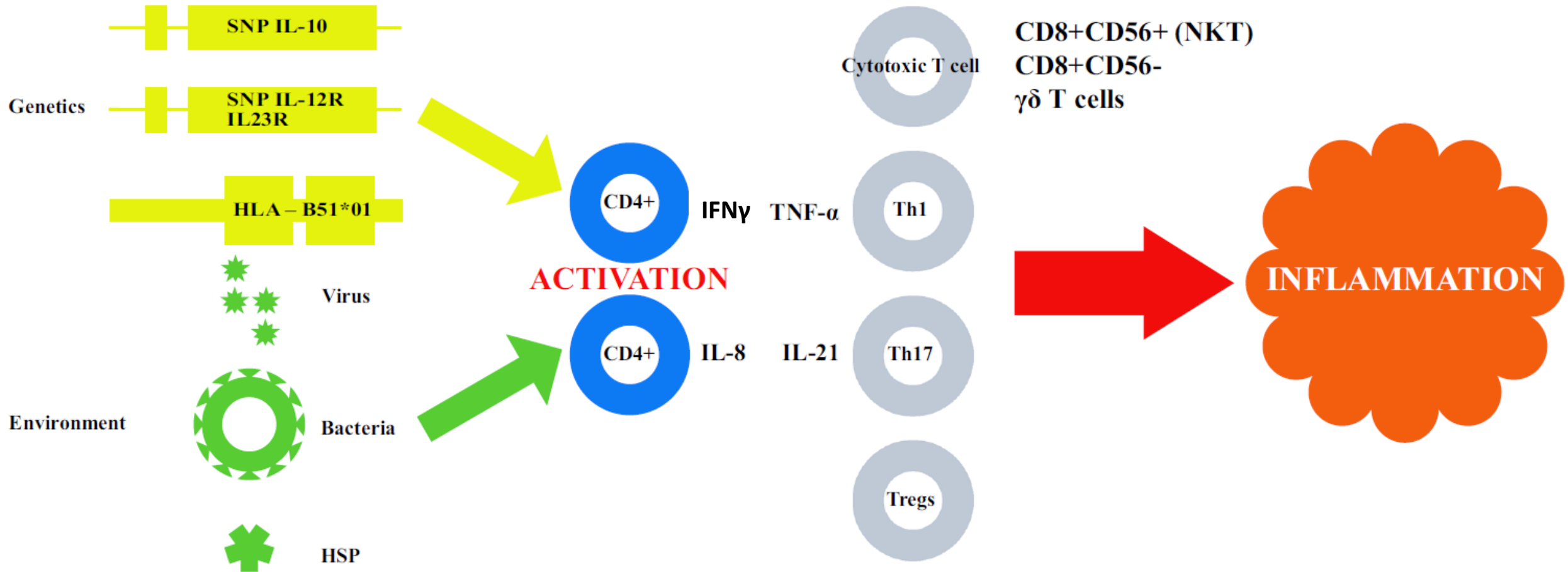
IL-1 β incrementado

Predominio de Respuesta Inmune Innata por mutaciones en TLR

Mayor presencia de neutrófilos en lesiones

Similitudes con MEFV

La confluencia de diversos factores generan inflamación



HLA-B51/B5 and the Risk of Behçet's Disease: A Systematic Review and Meta-Analysis of

Case-

Control
 Studies

Abstract
 Objectives
 Methods
 Results
 Conclusions

Table 2. Pooled estimates for overall and subgroup meta-analyses for HLA-B51/B5 carriage and its association with BD risk*

Subgroups	Populations, no.	Pooled prevalence for HLA-B51/B5†			OR (95% CI)	I ² (%)	P _{het}	P _{cov}
		BD cases (95% CI)	Controls (95% CI)					
Overall	80	57.2 (53.4–60.9)	18.1 (16.1–20.3)	5.78 (5.00–6.67)	60.6	0.0001		
By geographic area							0.31	
Eastern Asia	25	55.0 (49.8–60.1)	19.6 (16.0–23.7)	5.18 (4.15–6.47)	52.2	0.001		
Middle East/North Africa	27	63.5 (58.8–68.0)	21.7 (18.2–25.7)	6.25 (4.87–8.03)	70.4	0.0001		
Southern Europe	15	60.6 (51.9–68.7)	16.8 (13.3–21.0)	7.20 (4.89–10.62)	57.2	0.003		

Table 2. Pooled estimates for overall and subgroup meta-analyses for HLA-B51/B5 carriage and its association with BD risk*

Pooled prevalence for HLA-B51/B5†

Subgroups	Populations, no.	BD cases (95% CI)	Controls (95% CI)	OR (95% CI)
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*Significance of corresponding covariates in the pooled genetic effect (calculated by random-effects meta-regression).

† Pooled prevalence values were calculated using random-effects normal-logistic models.

‡ Two studies combined in the North American group had distinctly different ethnicities.

Conclusion. The strength of the association between BD and HLA-B51/B5, and its consistency across populations of various ethnicities, lends further support to this allele being a primary and causal risk determinant for BD. Variations according to sex support an interaction of this allele with BD characteristics.

Association of Major Class I Chain-Related Alleles with Behçet's Disease

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Purpose: Behçet's disease (BD) is known to be associated with HLA-B*51 in controls (29.2%) ($P = 0.000015$). H (81.8%) than in controls (29.2%) ($P = 0.000015$). To assess the confounding effect of HLA-B*51, we studied MICA polymorphisms in the extracellular domains

Methods: Thirty-three Turkish BD patients and 100 healthy controls were genotyped for MICA polymorphisms in the extracellular domains

Results: The phenotype frequencies of MICA*009 (29.2%) ($P = 0.000015$), MICA*010 (81.8%) than in controls (29.2%) ($P = 0.000015$). To assess the confounding effect of HLA-B*51, we studied MICA polymorphisms in the extracellular domains

Conclusion: Our results indicate that the association between MICA*009 and BD is independent of HLA-B*51. However, we suggest that MICA*009 like MICA*009 and BD. However, we suggest that MICA*009 like MICA*009 and BD. However, we suggest that MICA*009 like MICA*009 and BD.

Key Words: Behçet's disease, HLA-B*51, MICA, MICA*009, MICA*010, MICA*019, MICA*008, MICA*011, MICA*018, MICA*010, MICA*008

E.H. Hughes
R.W.M. Collins
E. Kondeatis
G.R. Wallace
E.M. Graham
R.W. Vaughan
M.R. Stanford

Key words:

Behçet's disease; HLA-B*51; MICA; MICA*009; MICA*010; MICA*019; MICA*008; MICA*011; MICA*018; MICA*010; MICA*008

Acknowledgments:

This work was supported by grants from the British Eye Research Foundation.

Associations of major histocompatibility

com
poly
Cau

Allelic Diversity and Affinity Variants of MICA*009 are Imbalanced in Spanish Patients with Behçet's Disease

I. Muñoz-Saá*, A. Cambra*, L. Pallarés†, G. Espinosa‡, A. Juan§, F. Pujalte¶, J. Milà* & M. R. Julià*

Abstract

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Abstract

The aetiology of Behçet's disease (BD) is still unclear, but both genetic and environmental factors are involved. HLA-B*51 and some MICA alleles have also been suggested as responsible for BD. MICA through NKG2D surface molecules. In this study, MICA alleles were typed by polymerase chain reaction (PCR) using specific primers, in 165 healthy Spanish controls and 40 BD patients. MICA*008 (28.48%), MICA*004 (17.58%), MICA*009 (9.39%) were the predominant alleles. The most frequent haplotype was MICA*004-B*44 (12.12%). MICA*011 (4.54%) and MICA*018 (5.15%) were also found. MICA*010 (1.81%) and MICA*008 were less frequent in BD patients than in controls. Similar results have been found in other Mediterranean individuals and this could support the hypothesis of a common genetic origin of both populations. The frequencies of MICA*009 and MICA*010 were significantly increased in our BD patients (22.62% versus 9.39% and 10.71% versus 1.81%, respectively). MICA*019 had not been described in other BD patients. Our results suggest the genetic heterogeneity at MICA locus in BD patients. MICA*009 and MICA*010 alleles for NKG2D were more frequent in controls than in BD patients. High-affinity alleles were not found in homozygous individuals. We argue against the hypothesis of an autoaggressive process through MICA–NKG2D interactions.

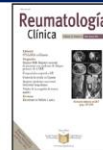
doi: 10.1111/j.1365-3083.2006.01780.x



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Reumatología Clínica

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Original Article

The HLA-B*51 Allele Is Strongly Associated With Behçet Disease in an Argentinean Population

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HLA-B51 antigen
Case-control studies
Latin America

ABSTRACT

Objective: To assess the association between the HLA-B*51 allele and Behçet Disease (BD) in Argentinean patients.

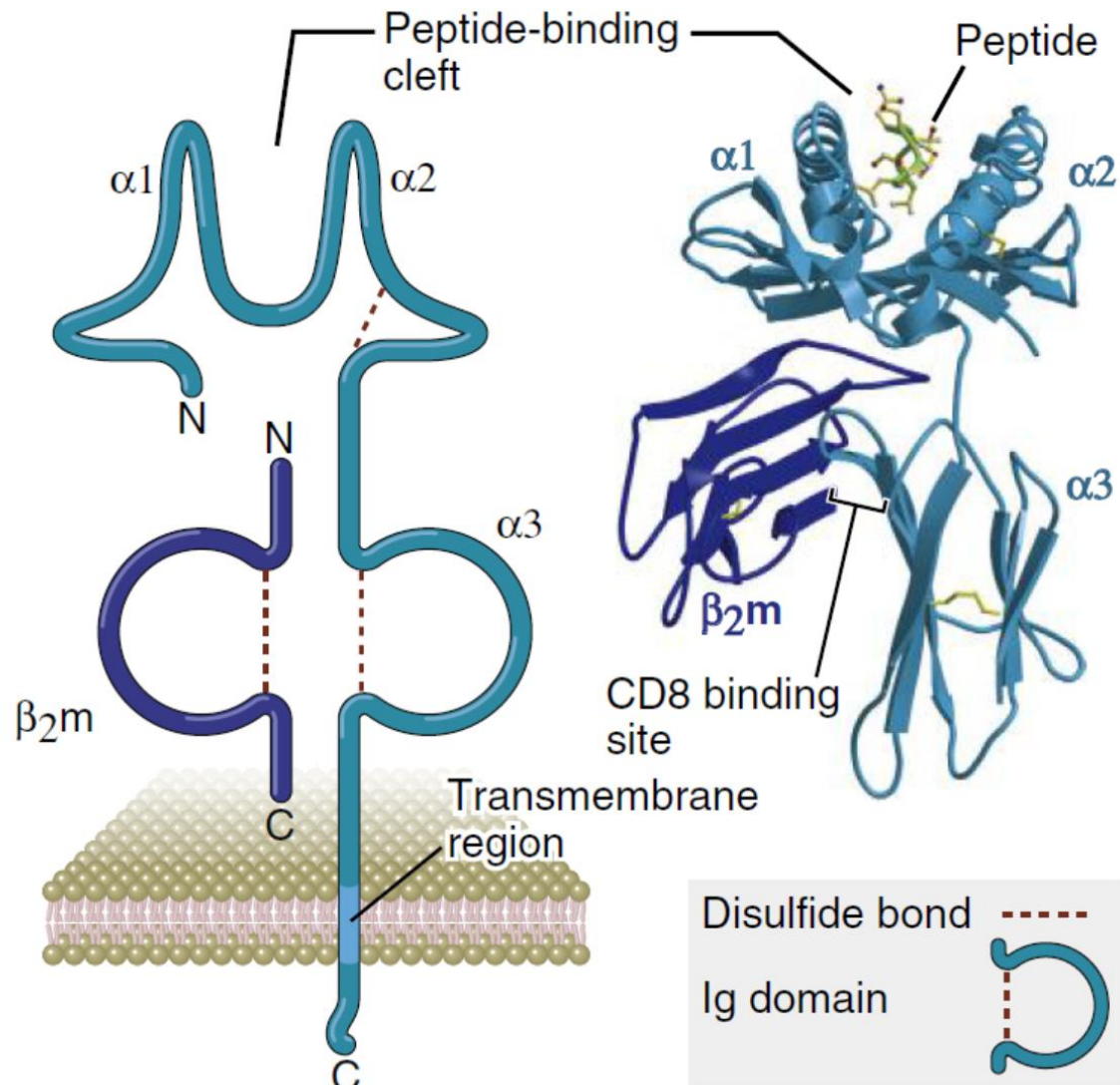
Methods: We enrolled 34 consecutive Argentinean patients with definitive diagnosis of BD between October 2016 and March 2017. None of the patients had the HLA-B*51 allele determined at study entry. Unrelated controls ($n = 240$) were randomly obtained from the national cadaveric donor database. Demographic and clinical features of the patients were recorded by attending physicians through a questionnaire.

Results: Mean age of cases was 42 years old. Nineteen (55.8%) were male, and the mean age at diagnosis was 35 years old; twenty (58.8%) were Mestizos, 8 (23.5%) were Caucasian, and 6 (17.6%) were Amerindians. Thirteen (38.2%) of 34 cases were HLA-B*51 allele positive; 11 were heterozygous and 2 homozygous for the allele. Thirty-four (14.2%) of 240 controls were positive for the HLA-B*51 allele. The association between BD and HLA-B*51 allele was greater than that of control group (OR = 3.75; $p = 0.0012$).

Conclusions: The HLA-B*51 allele is strongly associated with BD in Argentinean patients. Our finding is consistent with previous studies indicating that the HLA-B*51 allele is an important susceptibility gene in BD regardless the geographical region and ethnicity.

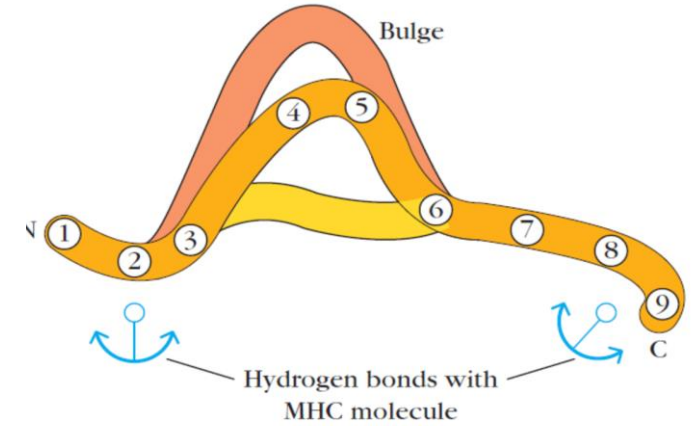
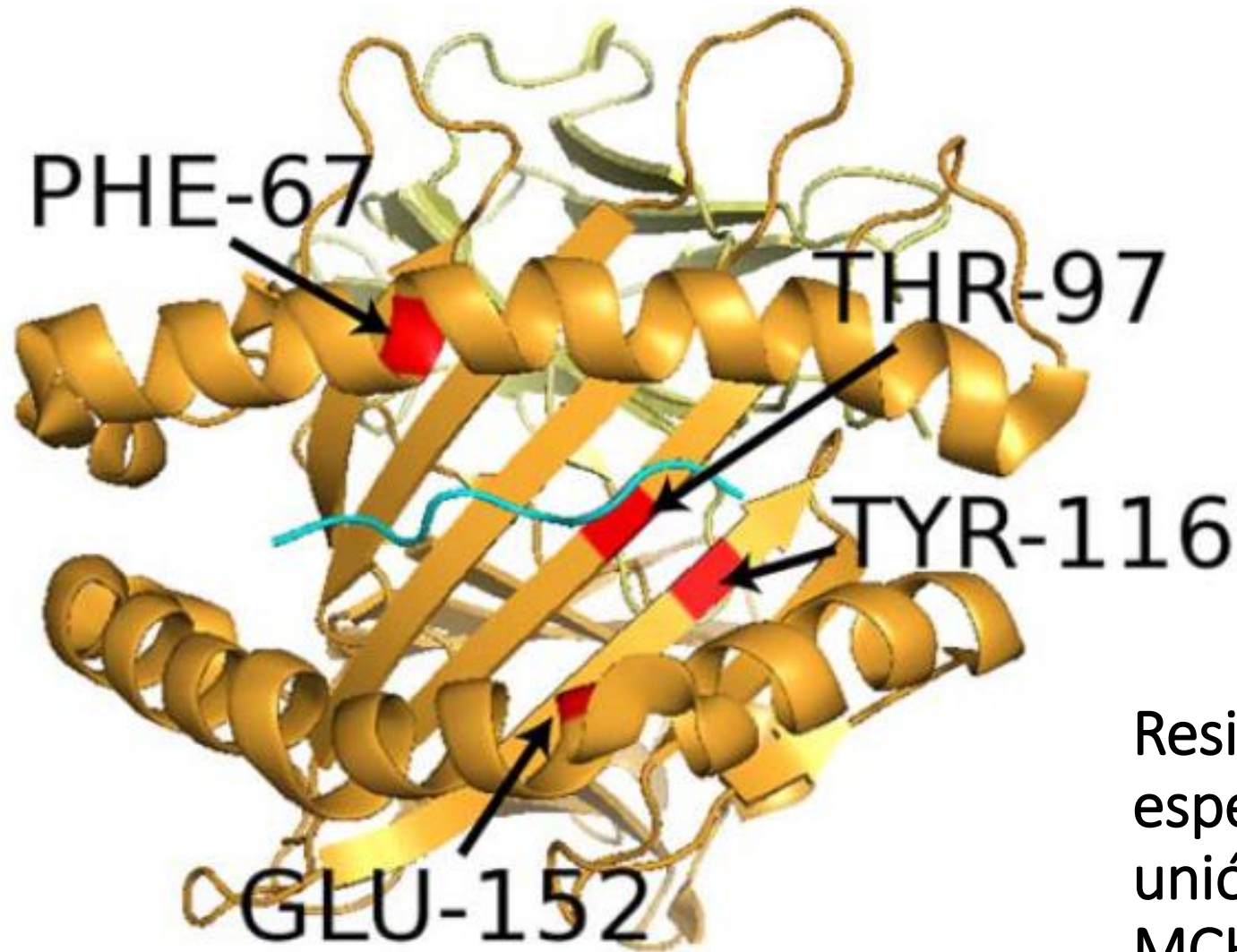
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El alelo HLA-B*51 se asoció fuertemente a la Enfermedad de Behçet en la población argentina



Polimorfismo de HLA-B*51 se traducen en alteraciones en el bolsillo de unión al antígeno

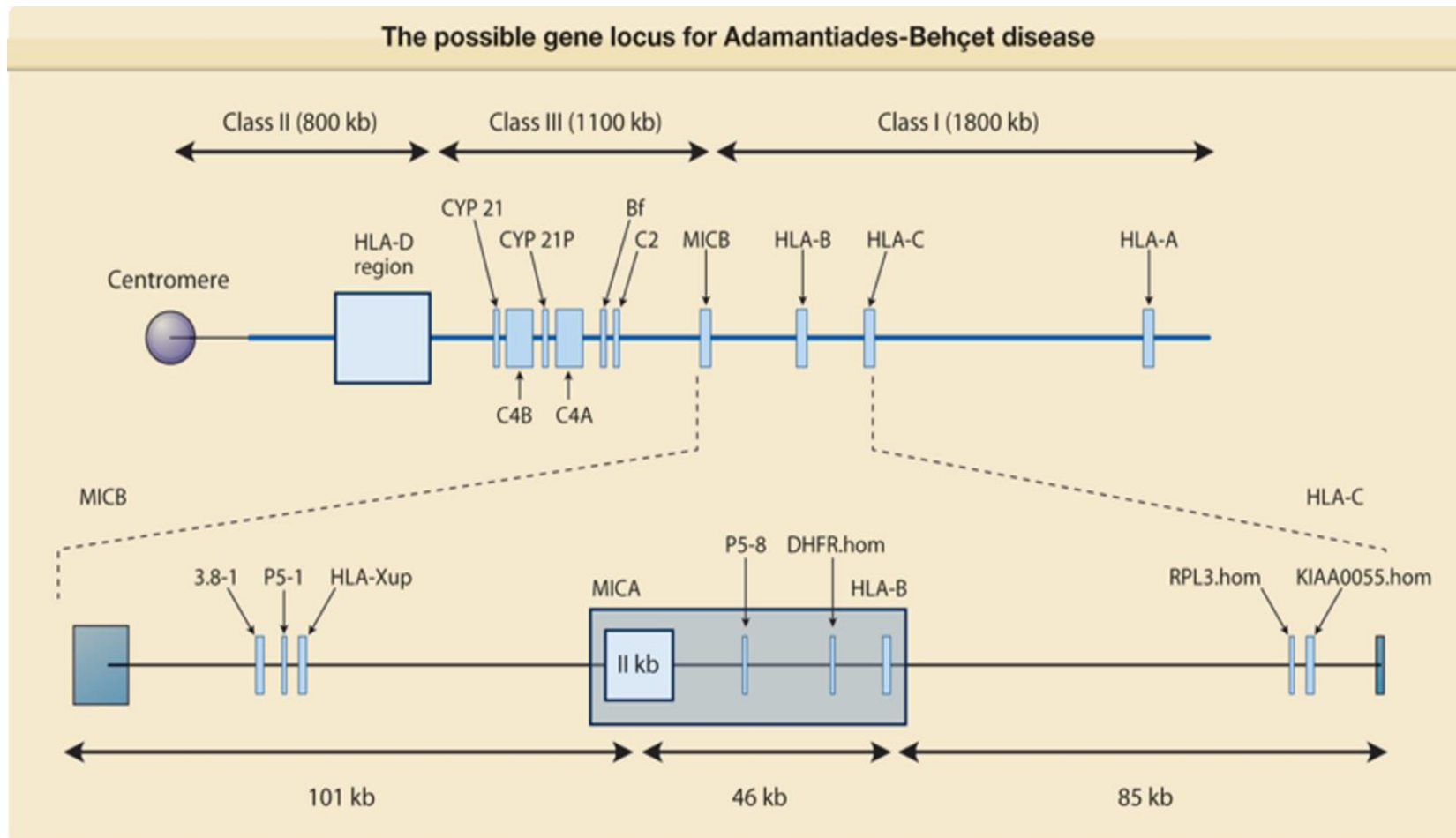
Abbas, Abul K., author. Cellular and molecular immunology / Abul K. Abbas, Andrew H. Lichtman, Shiv Pillai ; illustrations by David L. Baker, Alexandra Baker. -- Eighth edition.



Judith A. Owen et al. Kuby Immunology, 7^o e

Residuos 67 y 116 definen especificidad peptídica de unión al antígeno en molécula MCH I

Susceptibilidad genética



Distribución geográfica

Agregación familiar

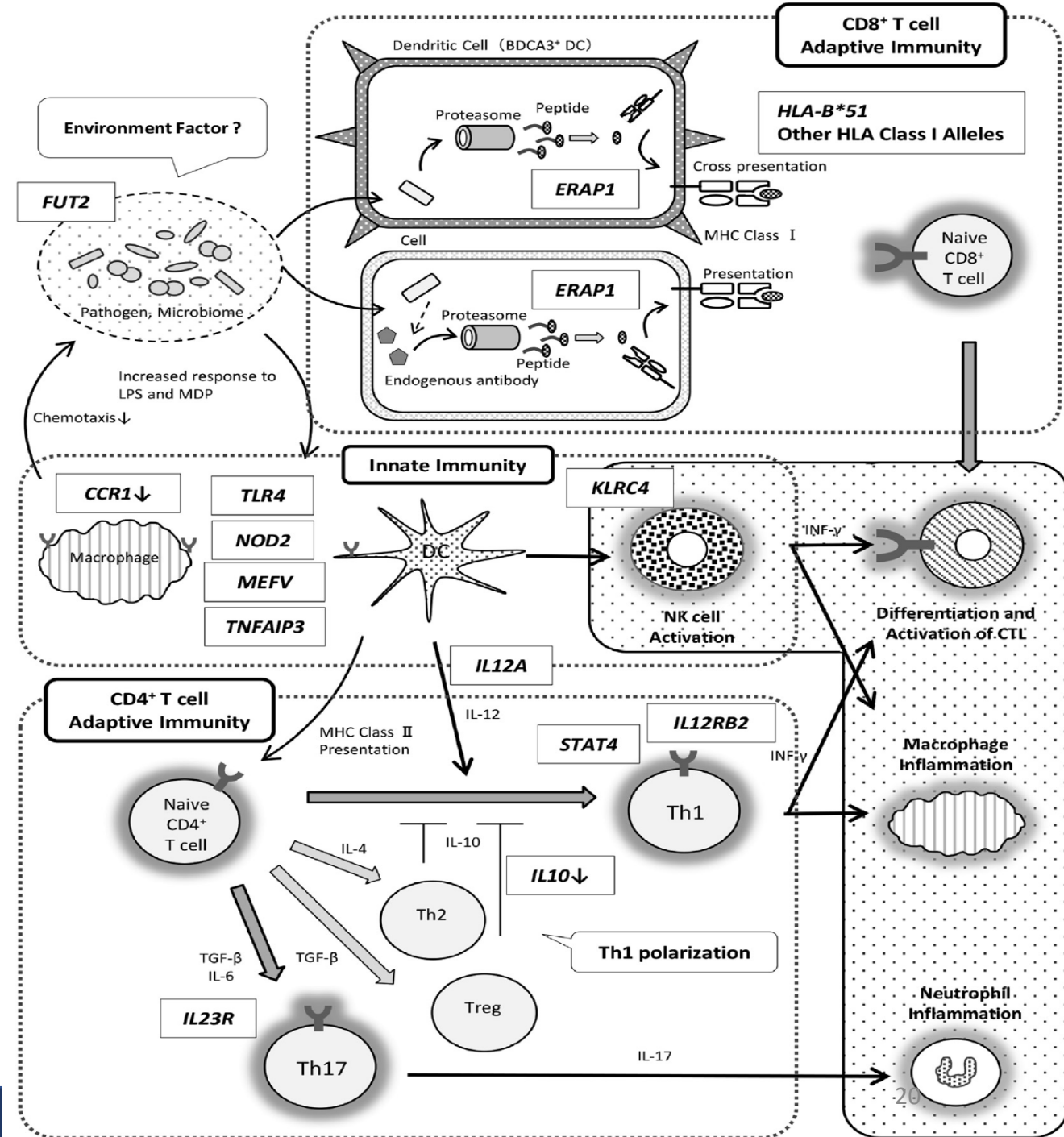
Correlación con Antígenos de clase I HLA (HLA-B51)

Polimorfismos en genes que controlan las respuesta inmune*

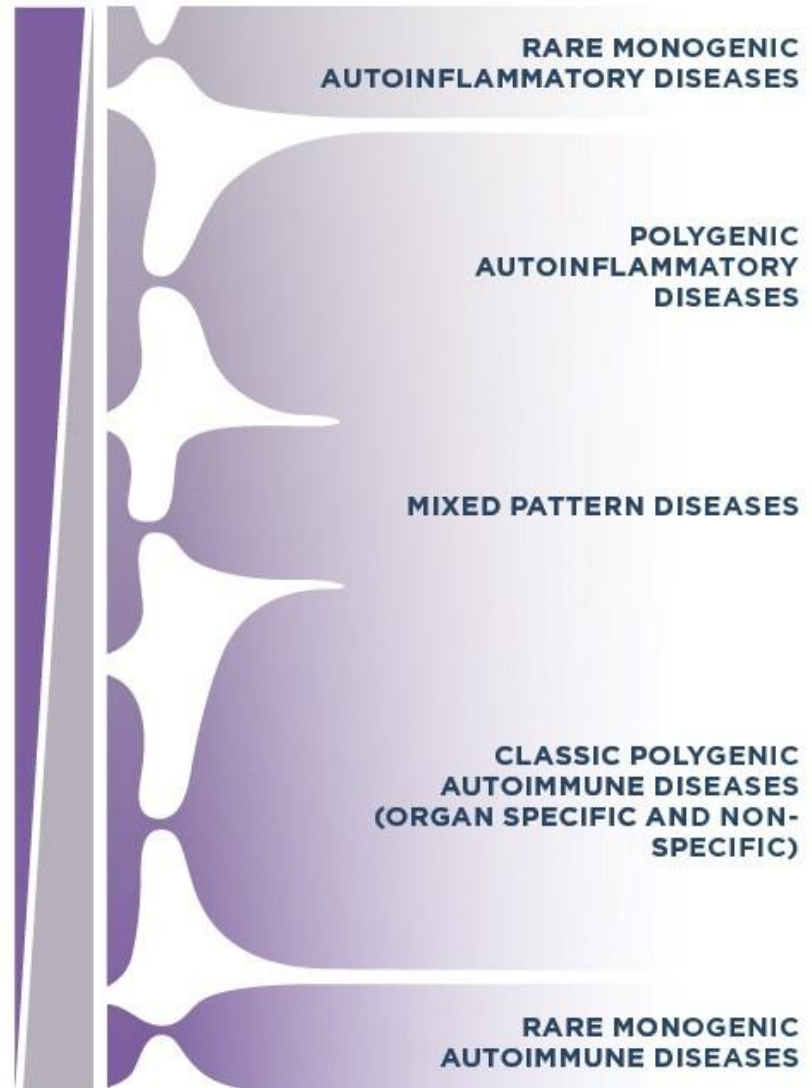
- Alteración microbioma
- Presentación antígenos

- Sobreactivación respuesta inmune innata

- Inducción Th-1/Th-17
- Macrófagos/ neutrófilos



AUTOINFLAMMATION



**RARE MONOGENIC
AUTOINFLAMMATORY DISEASES**

FMF, TRAPS, HIDS, CAPS, PAPA
Blau Syndrome

**POLYGENIC
AUTOINFLAMMATORY
DISEASES**

Crohn's disease, ulcerative colitis
Degenerative diseases, e.g. osteoarthritis
Gout/pseudogout/other crystal arthropathies
Some categories of reactive arthritis and psoriasis/psoriatic arthritis
Congenital diseases with associated tissue inflammation
Non-antibody associated vasculitis including giant cell and Takayasu arteritis
Idiopathic uveitis
Erythema nodosum associated disease, including sarcoidosis

MIXED PATTERN DISEASES

Ankylosing spondylitis
Reactive arthritis; psoriasis/psoriatic arthritis
Behcet's syndrome
Uveitis (HLA-B27 associated)

**CLASSIC POLYGENIC
AUTOIMMUNE DISEASES
(ORGAN SPECIFIC AND NON-
SPECIFIC)**

Rheumatoid arthritis
Autoimmune uveitis (sympathetic ophthalmia)
Myasthenia gravis
Dermatomyositis, scleroderma
Goodpasture syndrome
ANCA-associated vasculitis
Type 1 diabetes
Sjogren's syndrome
Systemic lupus erythematosus
Membranous nephropathy

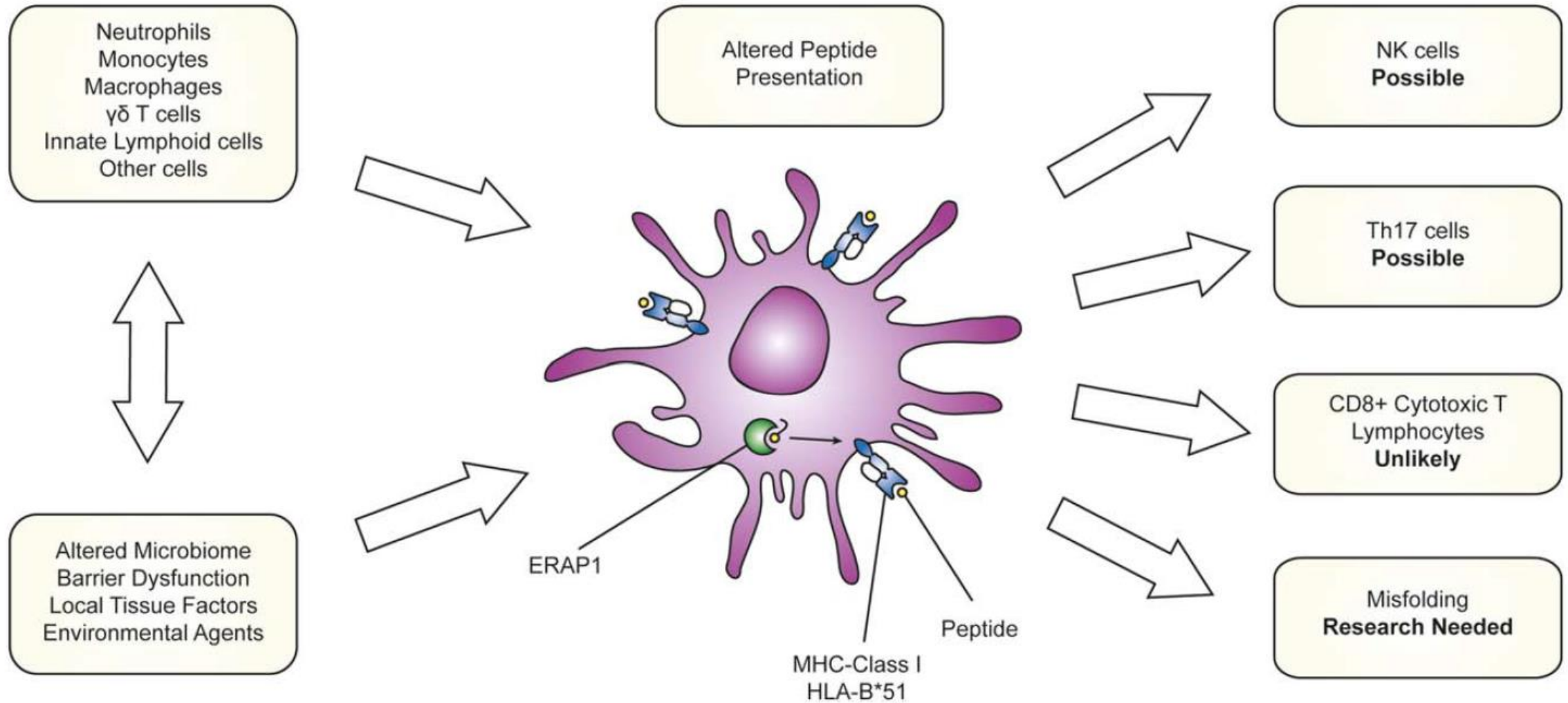
**RARE MONOGENIC
AUTOIMMUNE DISEASES**

ALPS
IPEX

AUTOIMMUNITY

*Adapted from D. Mc Gonagle & M. McDermott -
PLoS Medicine August 2006*

MHC I - patía



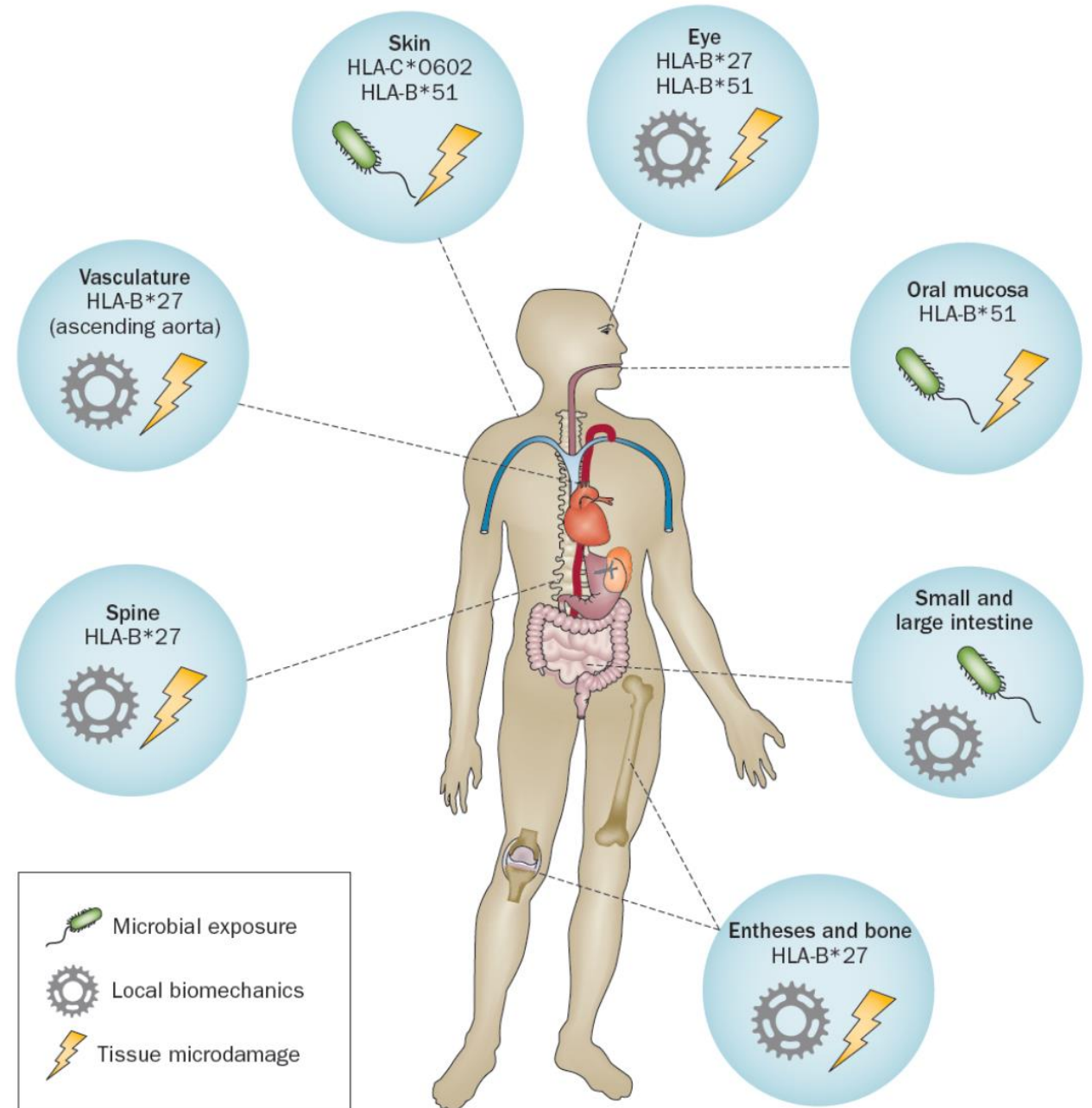
Enfermedades relacionadas con MCH I

Trauma piel:

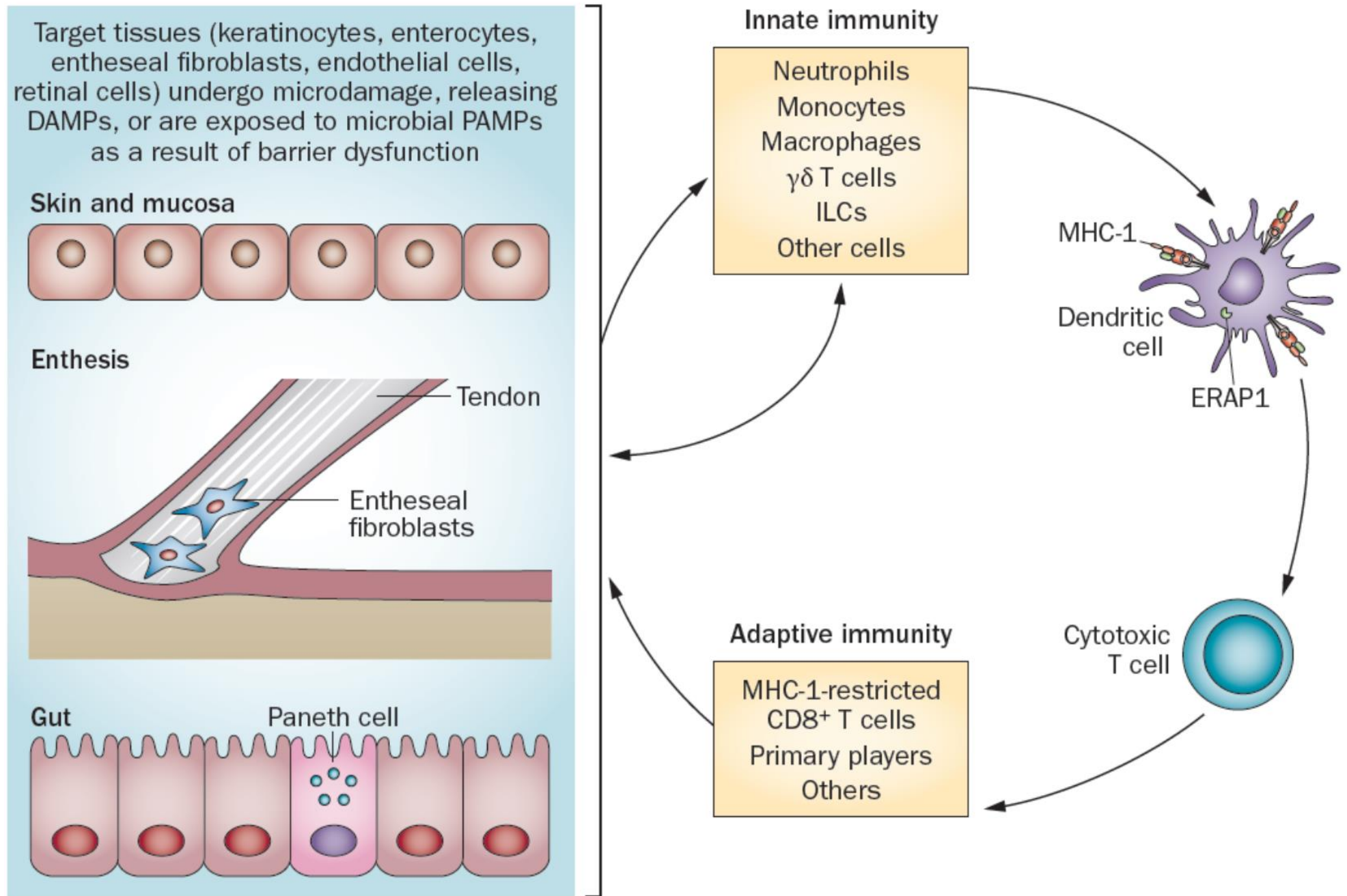
- Patergia (BD)
- Koebner (Ps)

Áreas estrés:

- Entesis (AS)



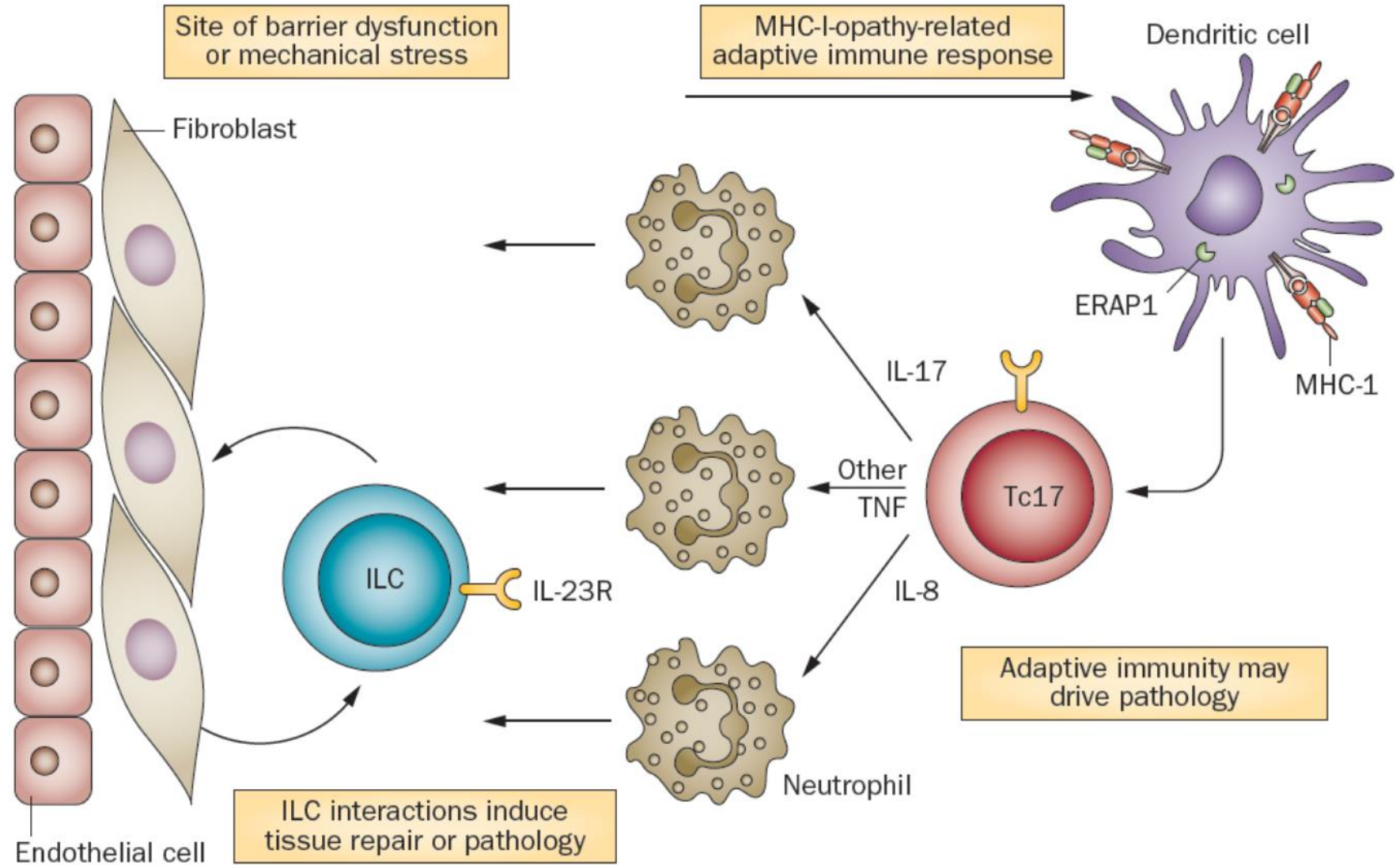
MHC –I es en enlace entre la respuesta inmune innata y adaptativa



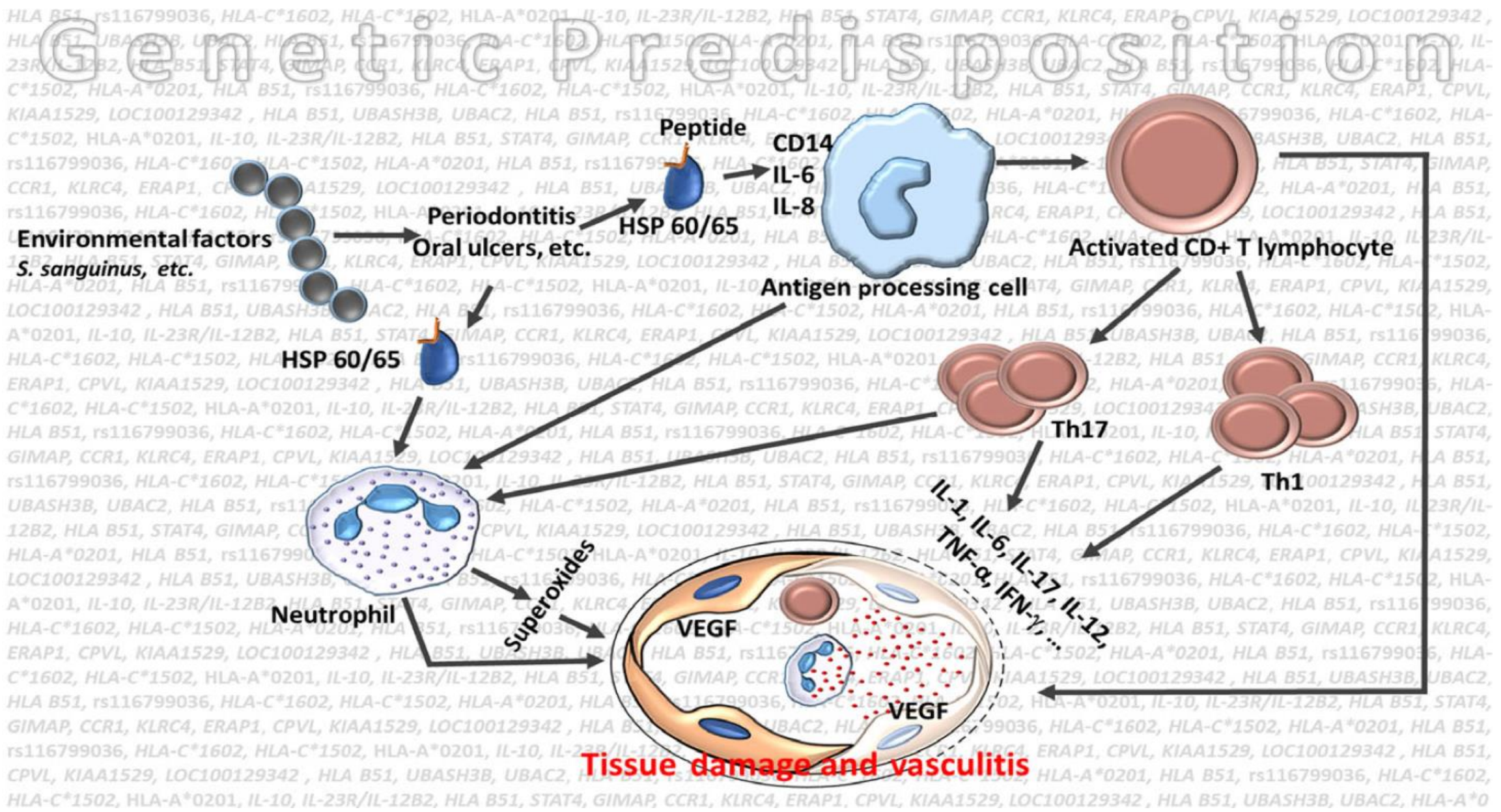
Amplificación respuesta inmune innata y adaptativa

LT CD8+ :
IL8 (CXCL8),
GM-CSF

Inflamación
neutrofílica



Genetic Predisposition

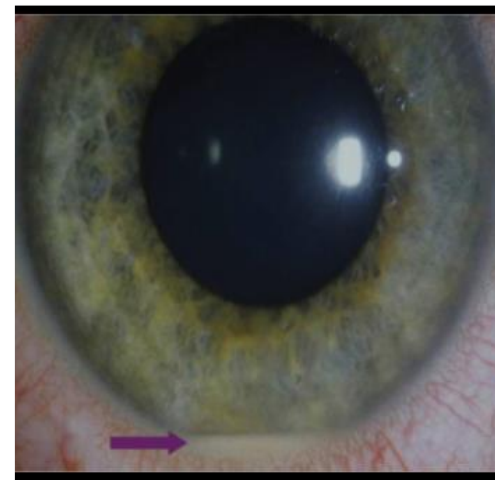




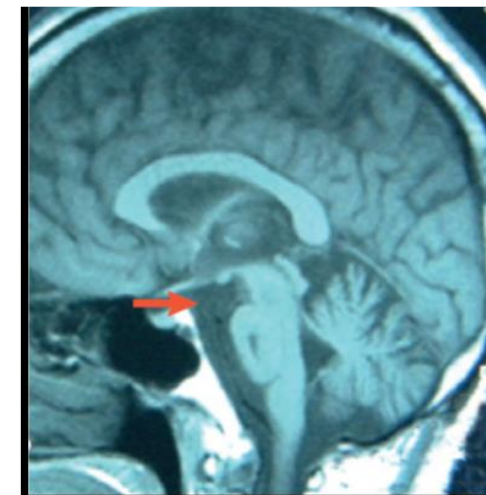
Manifestaciones clínicas

Compromiso multisistémico

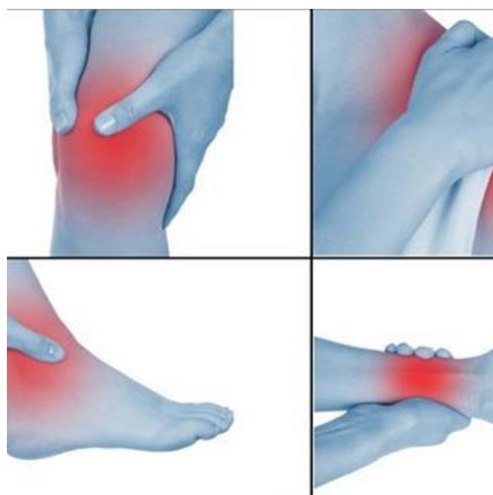
Ocular



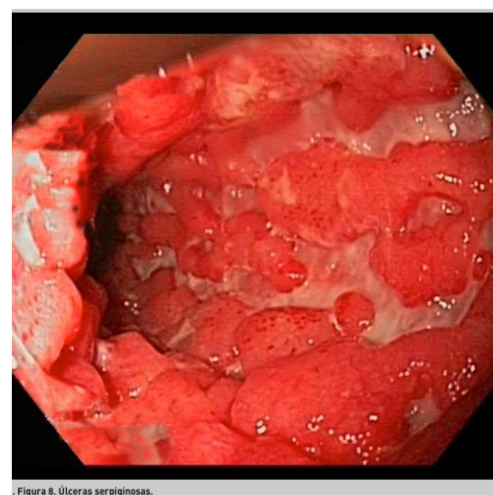
Neurológica



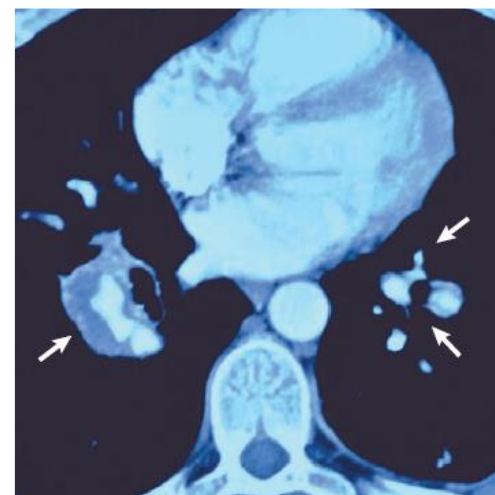
Articular



Gastrointestinal



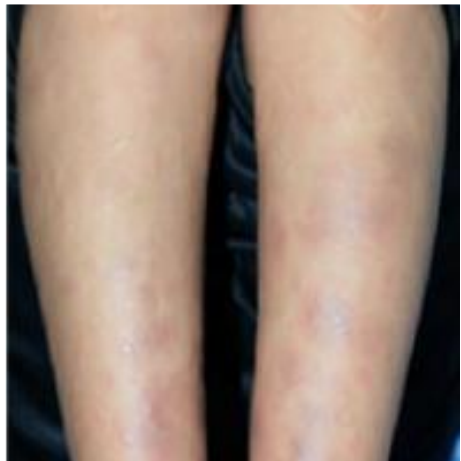
Vascular-A



Vascular -V

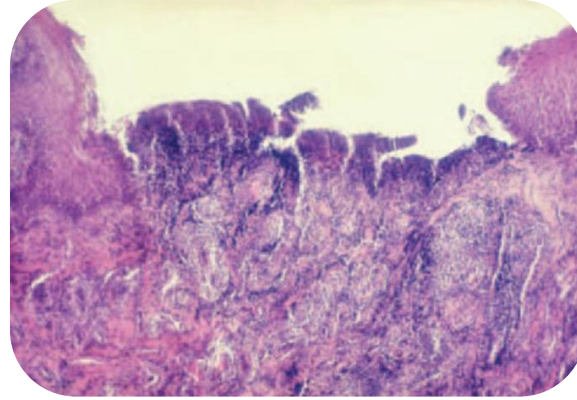


Manifestaciones mucocutáneas





Inicial *



Similar a estomatitis aftosa recurrente



Múltiples y extensas / Dolorosas*

Úlceras orales



Pocos mm – 2 cm



Menores < 1 cm > mayores*

Úlceras genitales

Lesión mas específica

Escroto / vulva

Dolorosas*

Testosterona-Neutrófilos

Cicatriz común

Epididimitis, salpingitis, varicocele*



Lesiones cutáneas



Reacciones
acneiformes*



Pseudofoliculitis



Eritema
nodoso**



Tromboflebitis
superficial



Ulcus cruris

Erupciones pápula-
vesícula-pústula

Nódulos

Eritema multiforme like

Púrpura palpable



Diagnóstico

Características de mayor peso al diagnóstico

Elementos fuertes

- Úlceras orales
- Enfermedad ocular
- Úlceras genitales
- Compromiso vascular mayor
- Enfermedad neurológica parénquima

Elementos débiles

- Variación geográfica en expresión de enfermedad
- Asociación con E. Crohn
- Distinta presentación de enfermedad
- Respuesta diversa a varios medicamentos

Criteria diagnósticos

ISG criteria for the diagnosis of Behçet disease⁸⁰

Recurrent oral ulceration:	Minor aphthous, major aphthous, or herpetiform ulcers observed by the physician or patient, which have recurred at least three times over a 12-month period
Plus any 2 of the following:	
Recurrent genital ulceration:	Aphthous ulceration or scarring observed by the physician or patient
Eye lesions:	Anterior uveitis, posterior uveitis, or cells in the vitreous on slit-lamp examination; or retinal vasculitis detected by an ophthalmologist
Skin lesions:	Erythema nodosum observed by the physician or patient, pseudofolliculitis, or papulopustular lesions; or acneiform nodules observed by the physician in postadolescent
Positive pathergy test:	Test interpreted as positive by the physician at 24-48 hr
These criteria are valid in the absence of other clinical explanation	

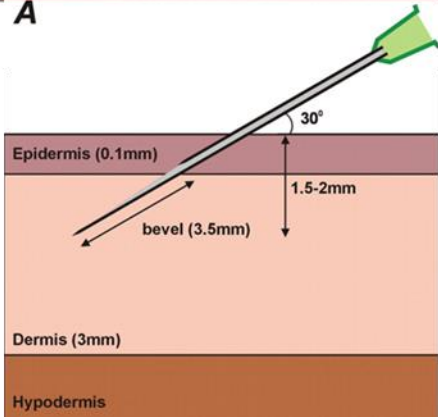
El diagnóstico es eminentemente clínico

Table 5 International Criteria for Behçet's Disease – point score system: scoring ≥ 4 indicates Behçet's diagnosis

Sign/symptom	Points
Ocular lesions	2
Genital aphthosis	2
Oral aphthosis	2
Skin lesions	1
Neurological manifestations	1
Vascular manifestations	1
Positive pathergy test*	1*



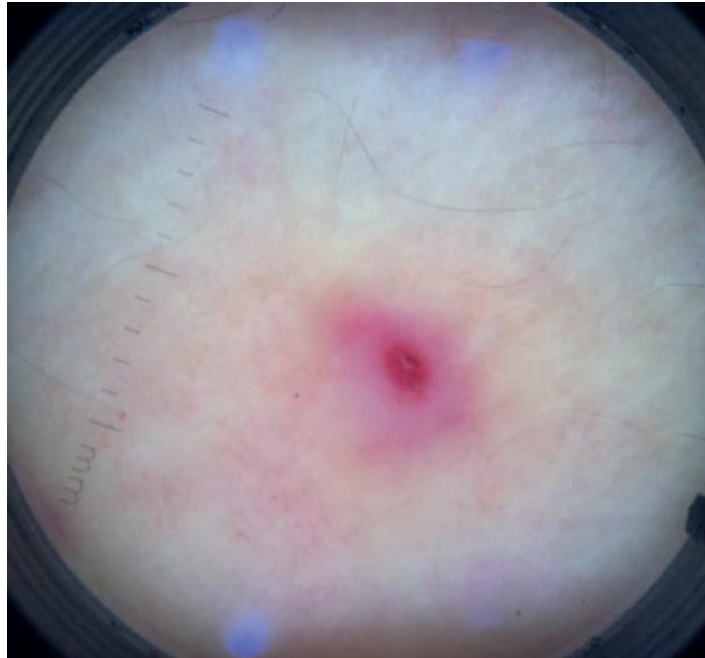
A



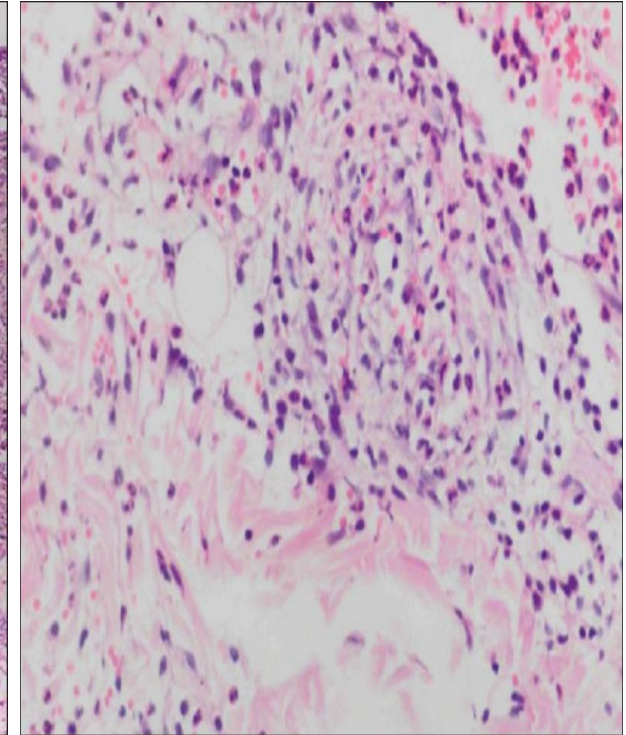
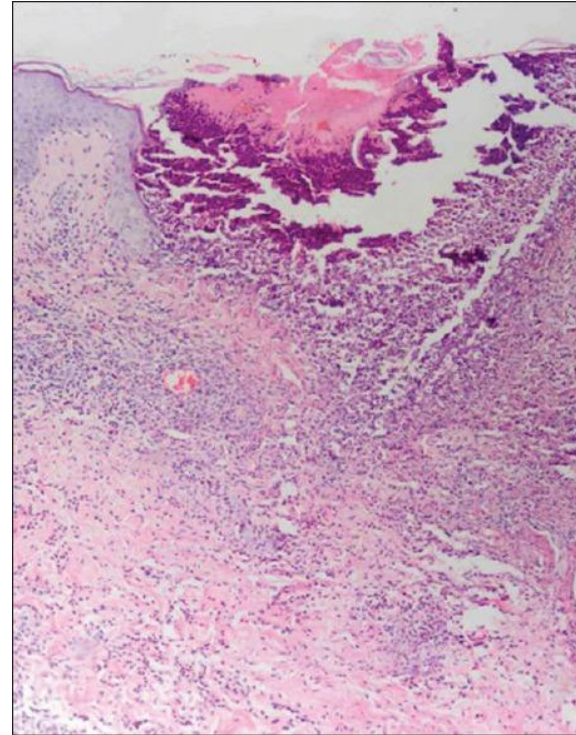
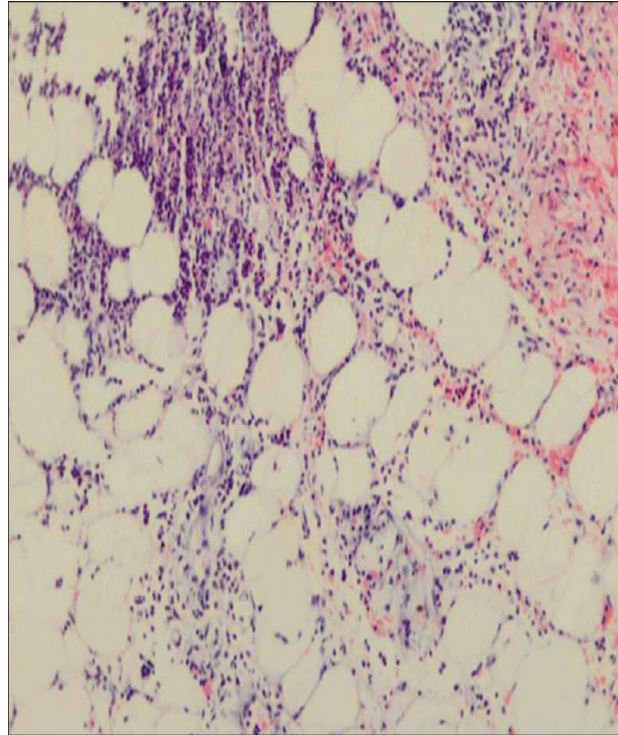
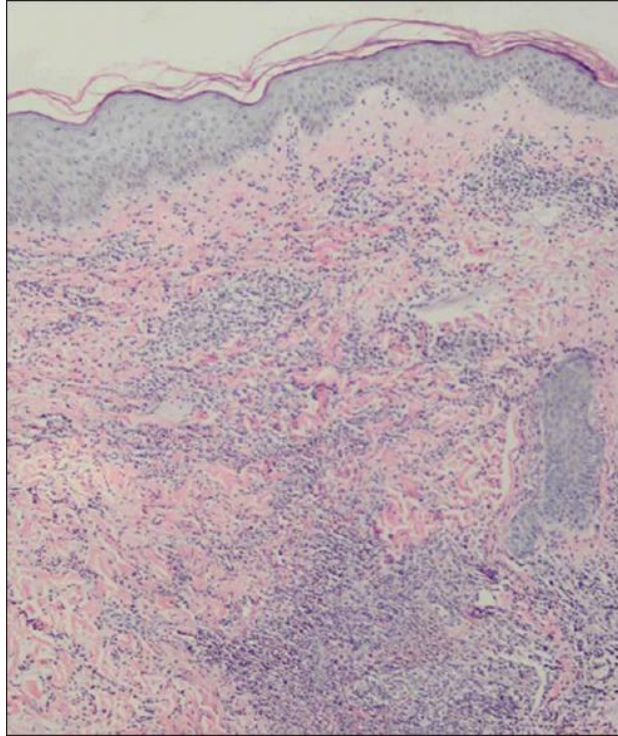
24 horas



48 horas



Test de patergia



Infiltrado
inflamatorio
mixto en dermis



Paniculitis
lobular sin
vasculitis



Pústula
epidérmica



Vasculitis
leucocitoclástica



Diagnóstico diferencial

Úlceras orales



Estomatitis aftosa recurrente



Dolor
Frecuentes
Múltiples

Lesiones pápulo-pustulares



Acné vulgar



Tórax superior
y extremidades
> 40 años

Úlceras genitales



**Artritis reactiva
Herpes
ITS**



Cicatriz
Escroto-vulva

Eritema nodoso



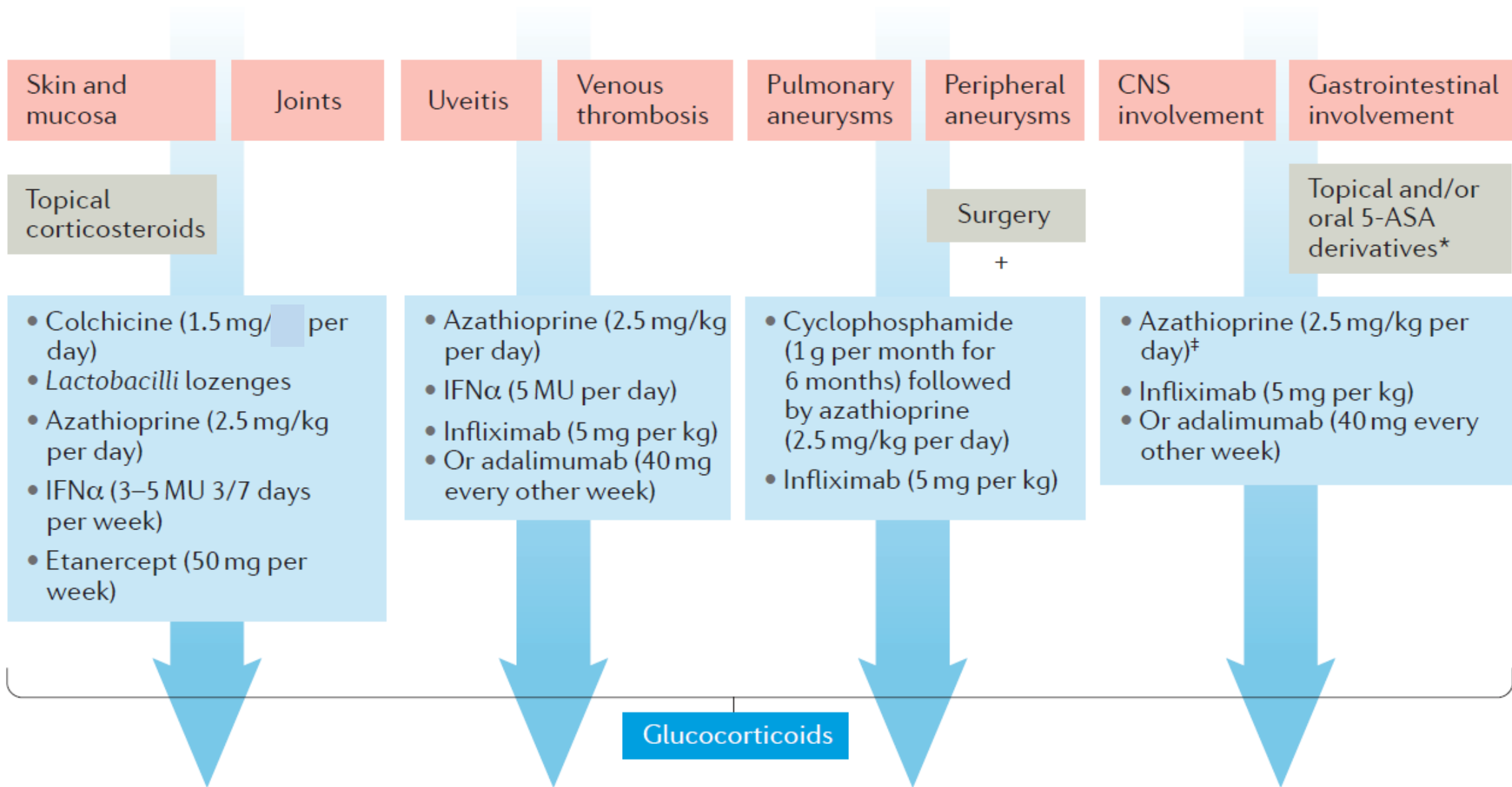
Otros

Múltiples
Dolorosas
Recurrentes
Áreas atípicas
Pigmentación residual
Vasculitis en histopatología

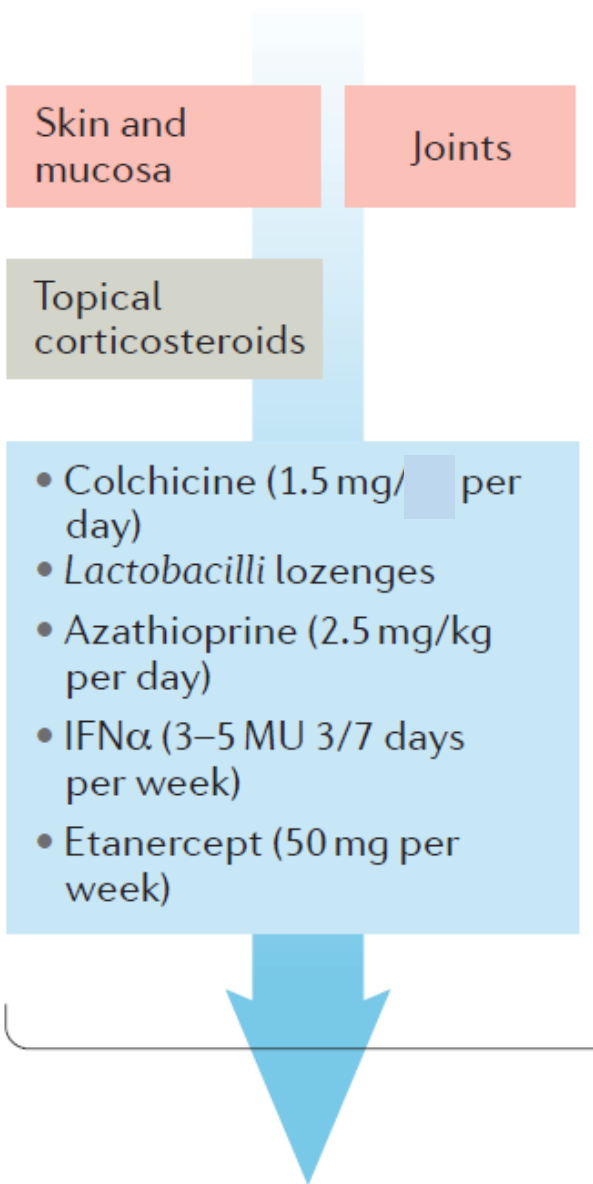


Tratamiento

An aerial photograph of a tropical bay. The water is a vibrant turquoise color, transitioning to a deeper blue as it meets the horizon. The bay is surrounded by lush green hills and dense tropical vegetation. In the distance, a small island with a few buildings is visible. The sky is filled with large, white, fluffy clouds. The overall scene is bright and scenic.



Tratamiento



Acetonida de triamcinolona 0,1% (orobase)

Úlceras orales

Corticoesteroides tópicos alta potencia

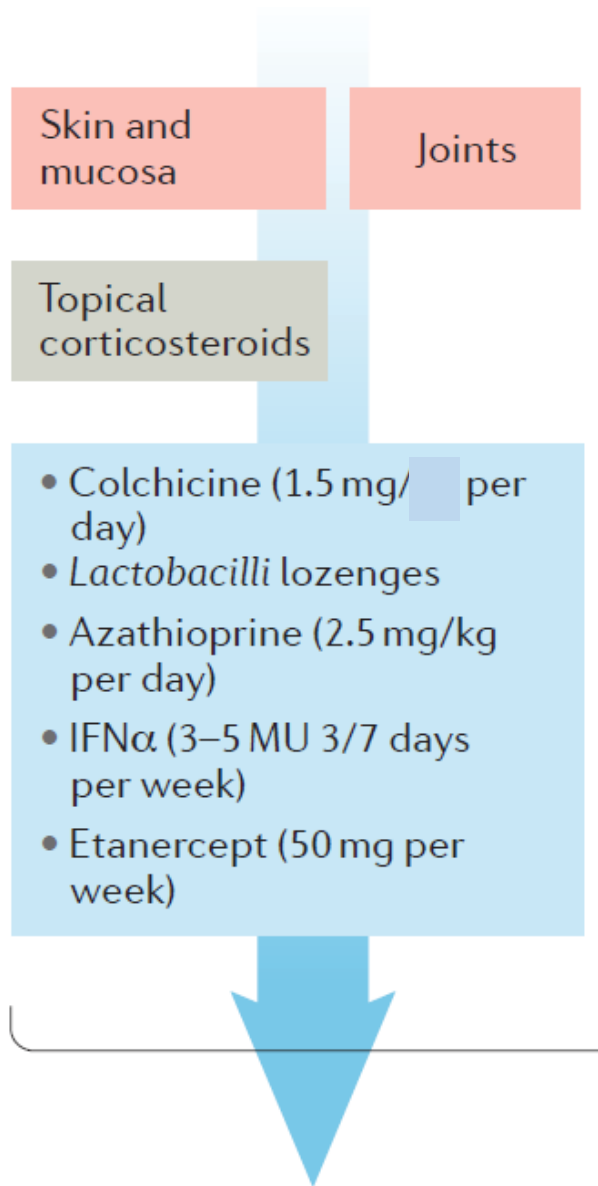
Úlceras genitales

Triamcinolona intralesional (5 a 10 mg / ml)

*Úlceras grandes *

Sucralfato tópico 1g / 5mL

Tratamiento



Colchicina de 1 a 2 mg / día

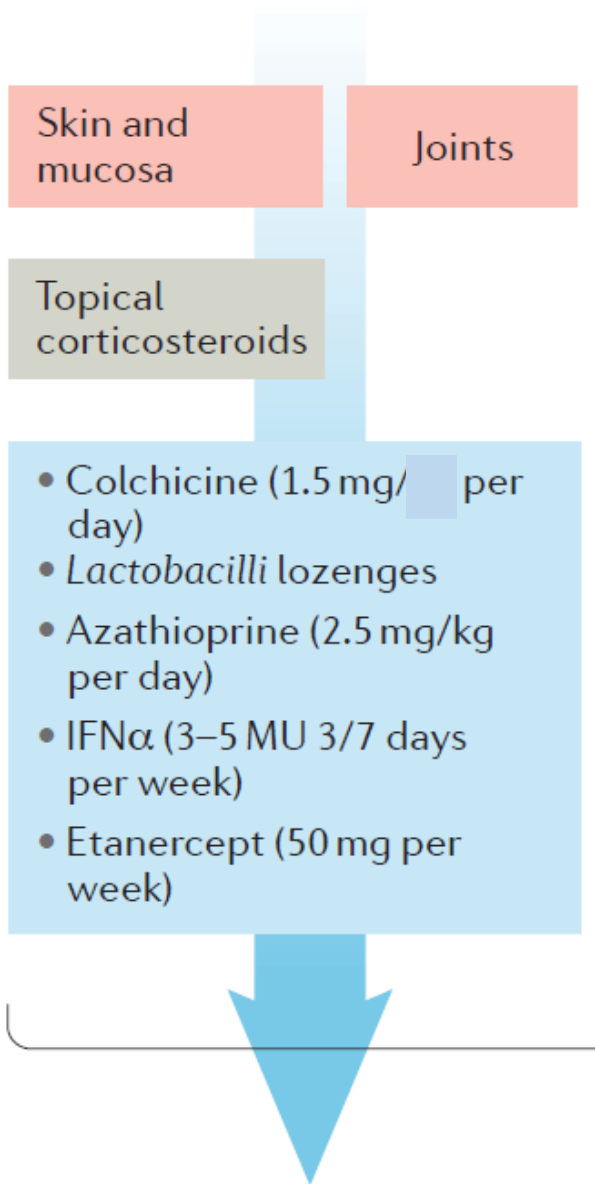
Prevención de úlceras orales y genitales recurrentes

Pseudofoliculitis, eritema nodoso, artritis

Glucocorticoides sistémicos (prednisona 15 mg / día)

Aftas orales o úlceras genitales refractarias a corticosteroides tópicos y la colchicina o lesiones múltiples

Tratamiento



Azatioprina - ha demostrado mejorar la ulceración oral y genital

Interferón alfa : duración y dolor de úlceras orales, frecuencia de genitales y lesiones pápulopustulares

Anti TNF : en combinación con DMARD (azatioprina)*

Glucocorticoides sistémicos y otros medicamentos inmunosupresores: Eritema nodoso (posibilidad de vasculitis subyacente)

Conclusiones



Desorden inflamatorio
multisistémico

Genética

Disparadores ambientales
Respuesta Inmune Innata y
Adaptativa

Más de un mecanismo
fisiopatogenético

Manifestaciones clínicas
variables

Diagnostico clínico

Tratamiento
multidisciplinario

Gracias

