We need to reconsider juvenile idiopathic arthritis classification and nomenclature.

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Juvenile idiopathic arthritis: diagnostic criteria

- Any arthritis:
  - lasting for more than 6 weeks
  - of unknown origin
  - with onset before 16 years of age

	Frequency*	Onset age	Sex ratio
Systemic arthritis	4–17%	Throughout childhood	F=M
Oligoarthritis	27–56%	Early childhood; peak at 2–4 years	F>>>M
Rheumatoid-factor-positive polyarthritis	2–7%	Late childhood or adolescence	F>>M
Rheumatoid-factor-negative polyarthritis	11–28%	Biphasic distribution; early peak at 2–4 years and later peak at 6–12 years	F>>M
Enthesitis-related arthritis	3–11%	Late childhood or adolescence	M>>F
Psoriatic arthritis	2–11%	Biphasic distribution; early peak at 2–4 years and later peak at 9–11 years	F>M
Undifferentiated arthritis	11–21%	..	..

*Reported frequencies refer to percentage of all juvenile idiopathic arthritis.

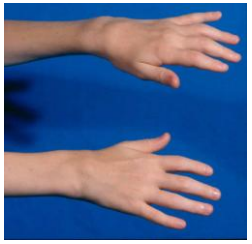
Table 1: **Frequency, age at onset, and sex distribution of the International League of Associations for Rheumatology (ILAR) categories of juvenile idiopathic arthritis**

Juvenile idiopathic arthritis

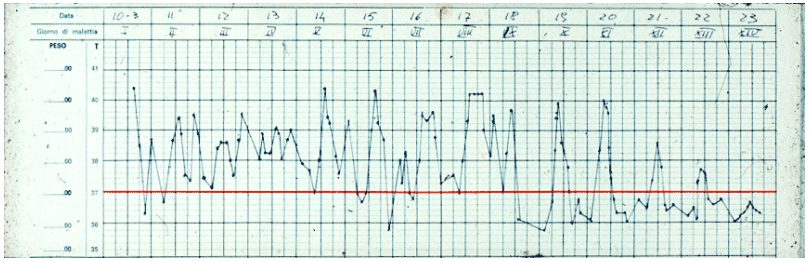
Lancet 2007; 369: 767–78

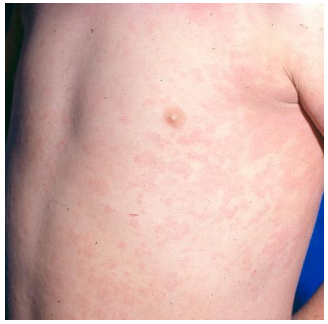
Angelo Ravelli, Alberto Martini

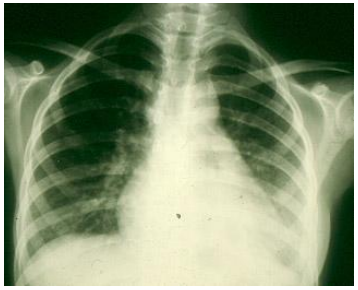
Systemic JIA



Arthritis







Fever

Evanescent rash

Serositis

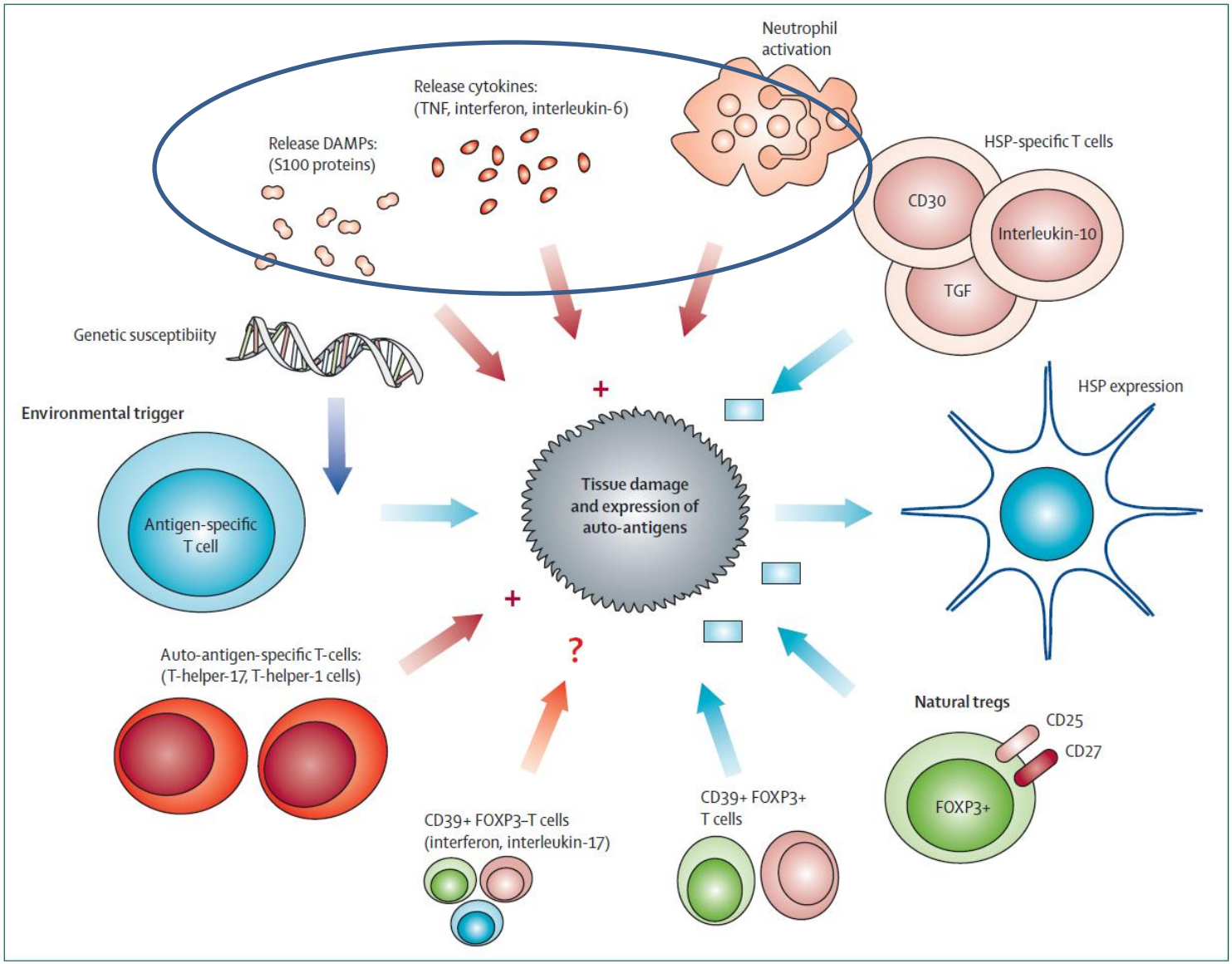
Hepatosplenomegaly

Lymphadenopathy

ESR and CRP +++
Neutrophilic leukocytosis
Thrombocytosis +++
Microcytic anemia

ANA and RF negative

Equal sex incidence, may occur at any age, Rare in adults (adult-onset Still's disease)



Prakken B, Albani S, Martini A. Lancet 2011; 377: 2138–49

Systemic JIA as an autoinflammatory polygenic syndrome

- Signs of a general activation of the innate immune system
- High serum levels of proteins produced by phagocytes:
  - ferritin
  - S100A8, S100A9, S100A12
- Major role of IL-6, IL-1, IL-18

Gene expression profiling

- **Up-regulation** of *the innate immune pathways:* TLR/IL1R genes, genes of monocyte/macrophage lineage, genes of the negative feedback regulation of innate inflammatory response
- **Down-regulation** of the gene networks involving *NK, T cell and MHC* antigen-related biological processes

Fall et al A&R 2007; Ogilvie et al A&R 2007; Allantaz et al JEM 2007; Barnes et al A&R 2009

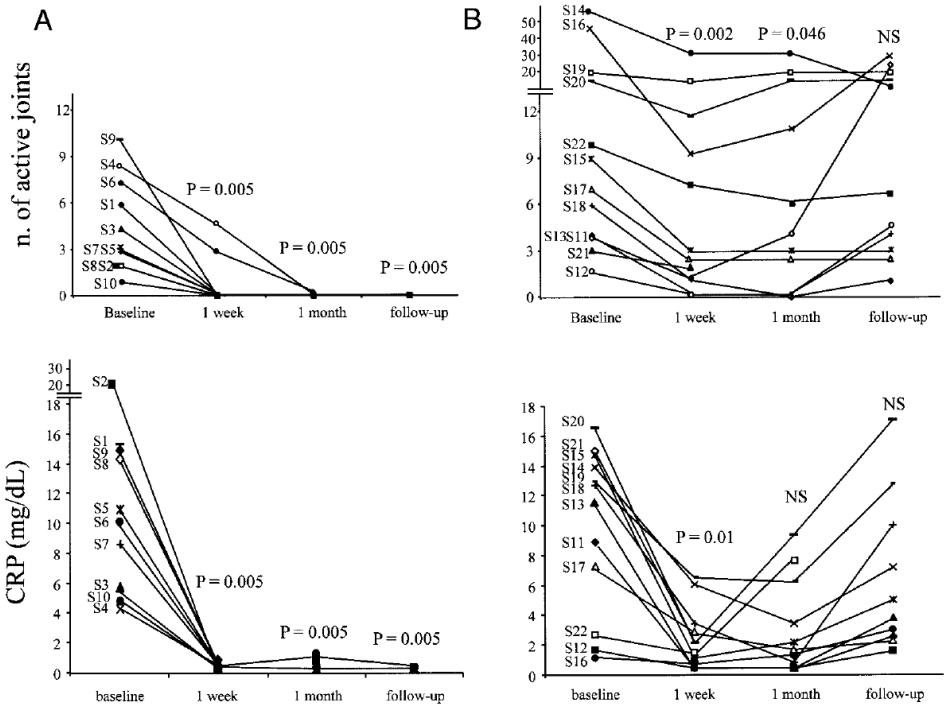
Systemic JIA

- It probably represents the common endpoint of several different diseases that all cause a marked and persistent activation of the innate immune system

Heterogeneity

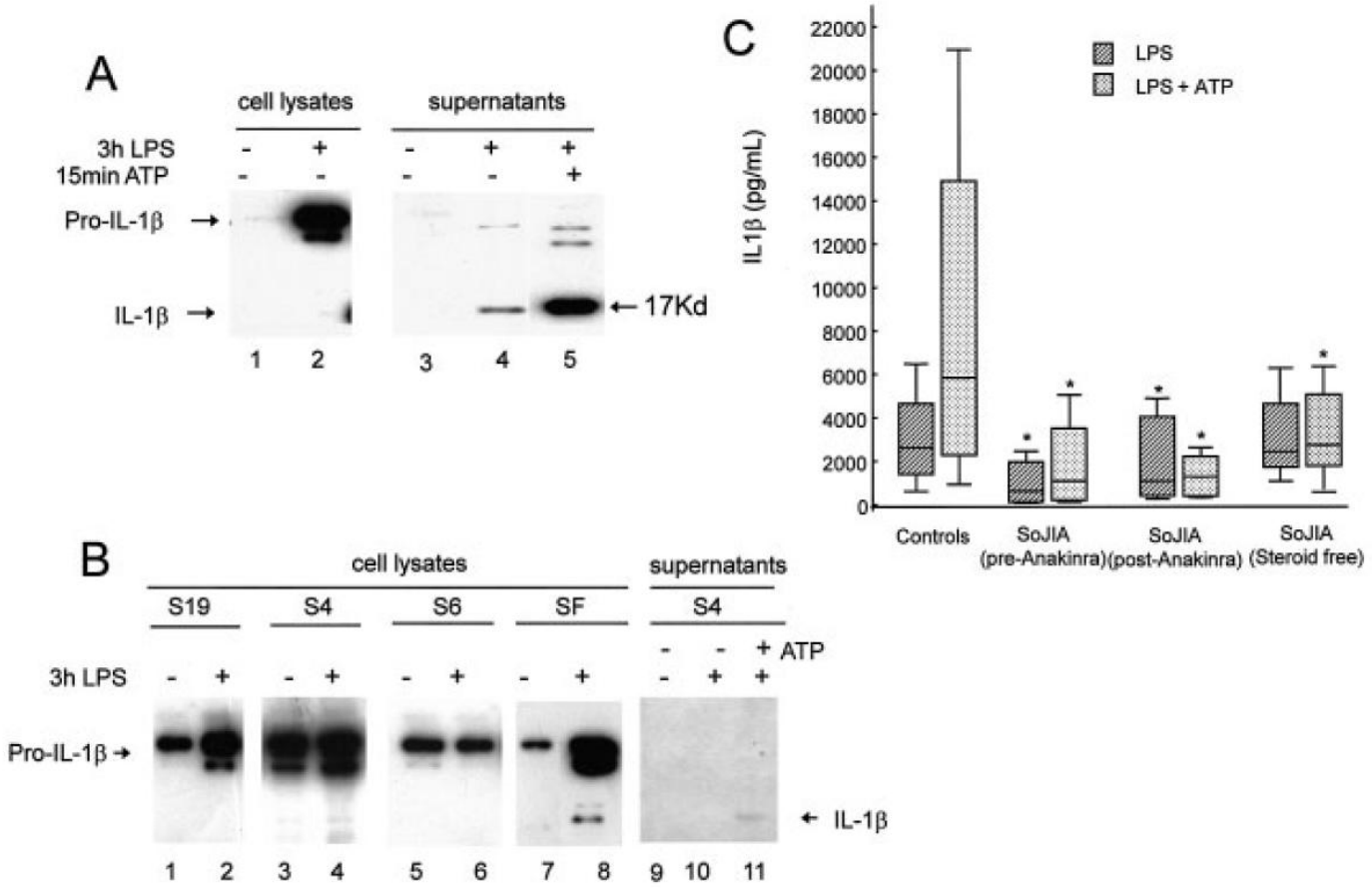
- Heterogeneous outcome:
  - ~ 50% systemic flares with little persistent arthritis
  - ~ 50% severe arthritis with or without persistence of systemic symptoms

The Pattern of Response to Anti–Interleukin-1 Treatment Distinguishes Two Subsets of Patients With Systemic JIA



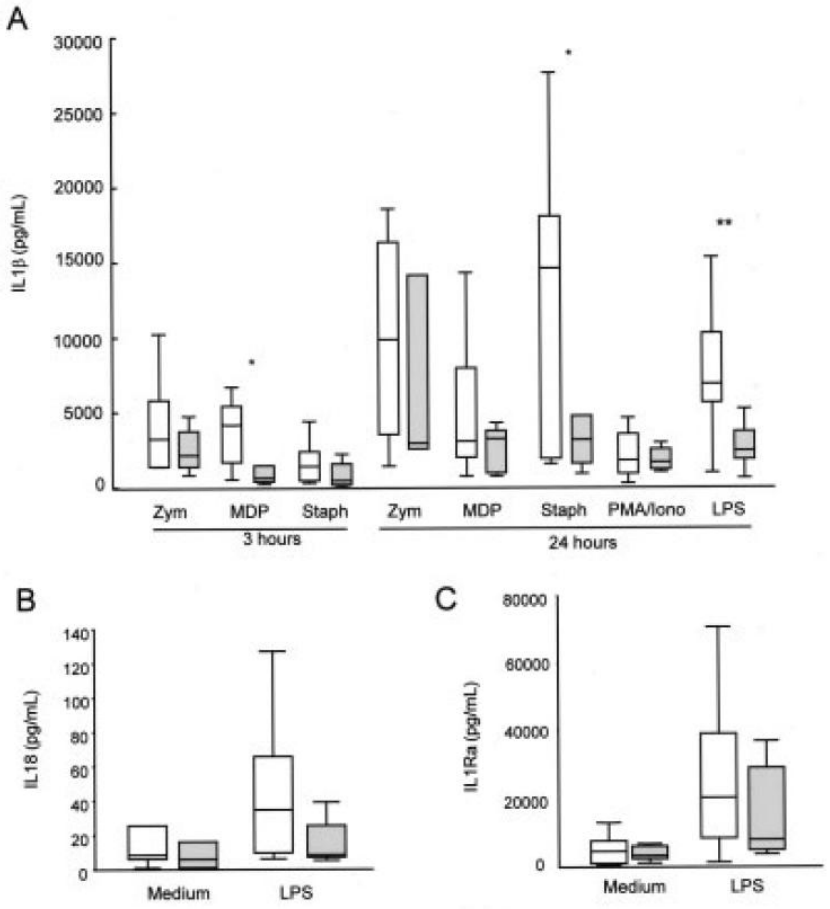
Gattorno et al Arthritis Rheum 2008; 58:1505-1515

IL-1production, processing, and secretion by monocytes from healthy controls and systemic JIA



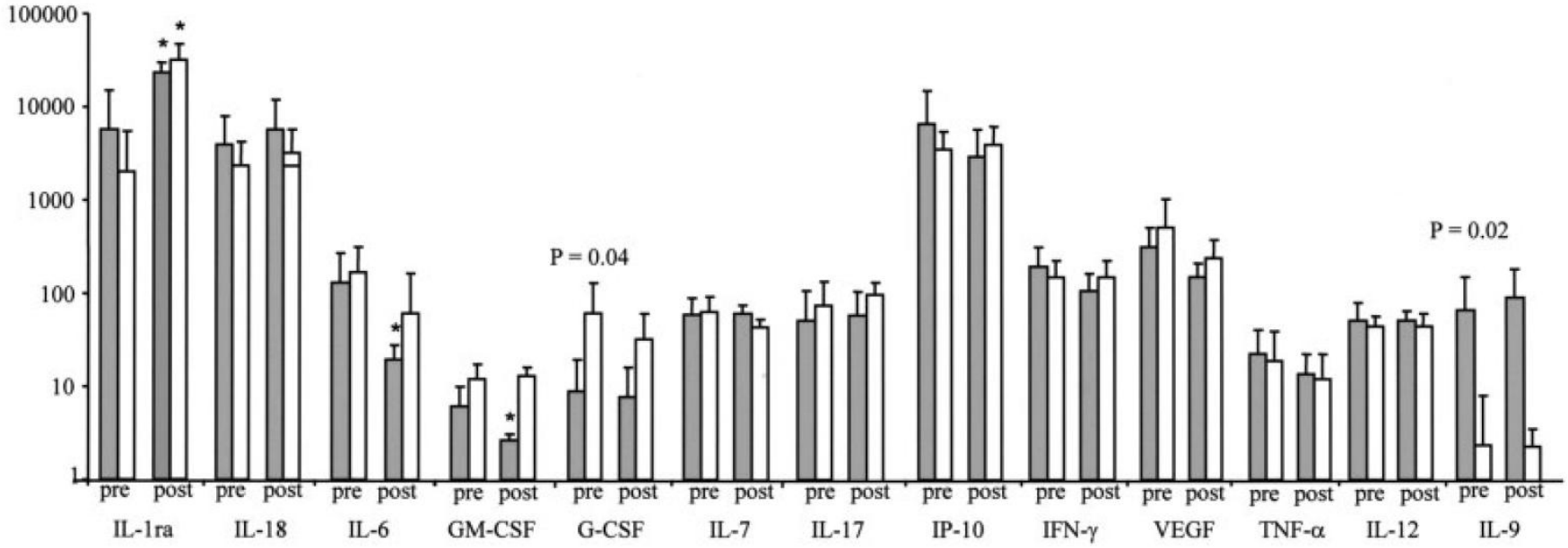
Gattorno et al Arthritis Rheum 2008; 58:1505-1515

IL-1b, IL-1Ra and IL-18 “in vitro” production



Gattorno et al Arthritis Rheum 2008; 58:1505-1515

Levels of serum cytokines and other soluble molecules



Gattorno et al Arthritis Rheum 2008; 58:1505-1515

Responders vs incomplete or non-responders

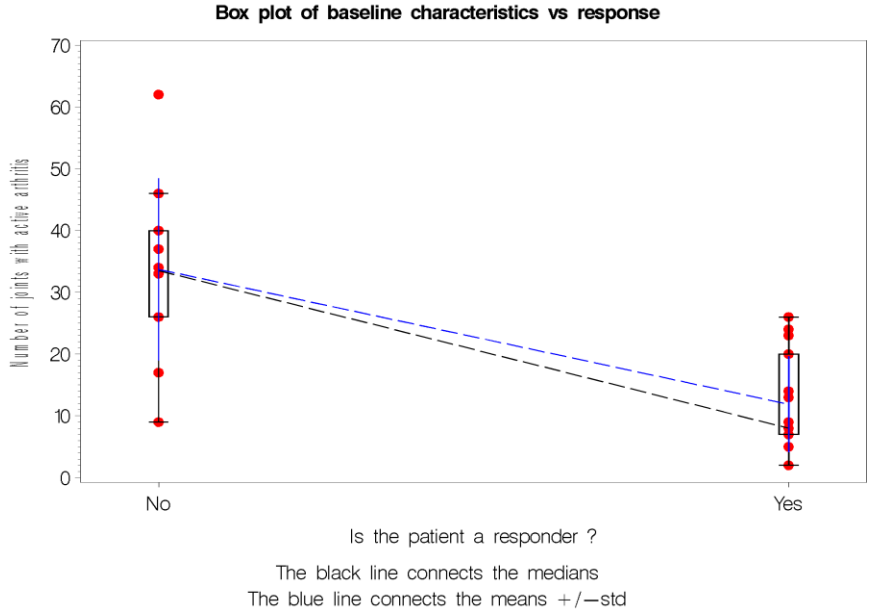
- Complete responders had :
  - a significantly **lower number of active joints** (median 3.5 [range 1–10]) compared with incomplete responders and nonresponders (median 7 [range 3–55]) (P<0.02)
  - had a significantly **higher number of circulating neutrophils** (median 19.3 103/mm3 [range 6.1–30.9]) compared with incomplete responders and nonresponders (9.1 103/mm3 [range 7.3–19.7]) (*P <0.02).*This difference was not related to ongoing steroid treatment

Gattorno et al Arthritis Rheum 2008; 58:1505-1515

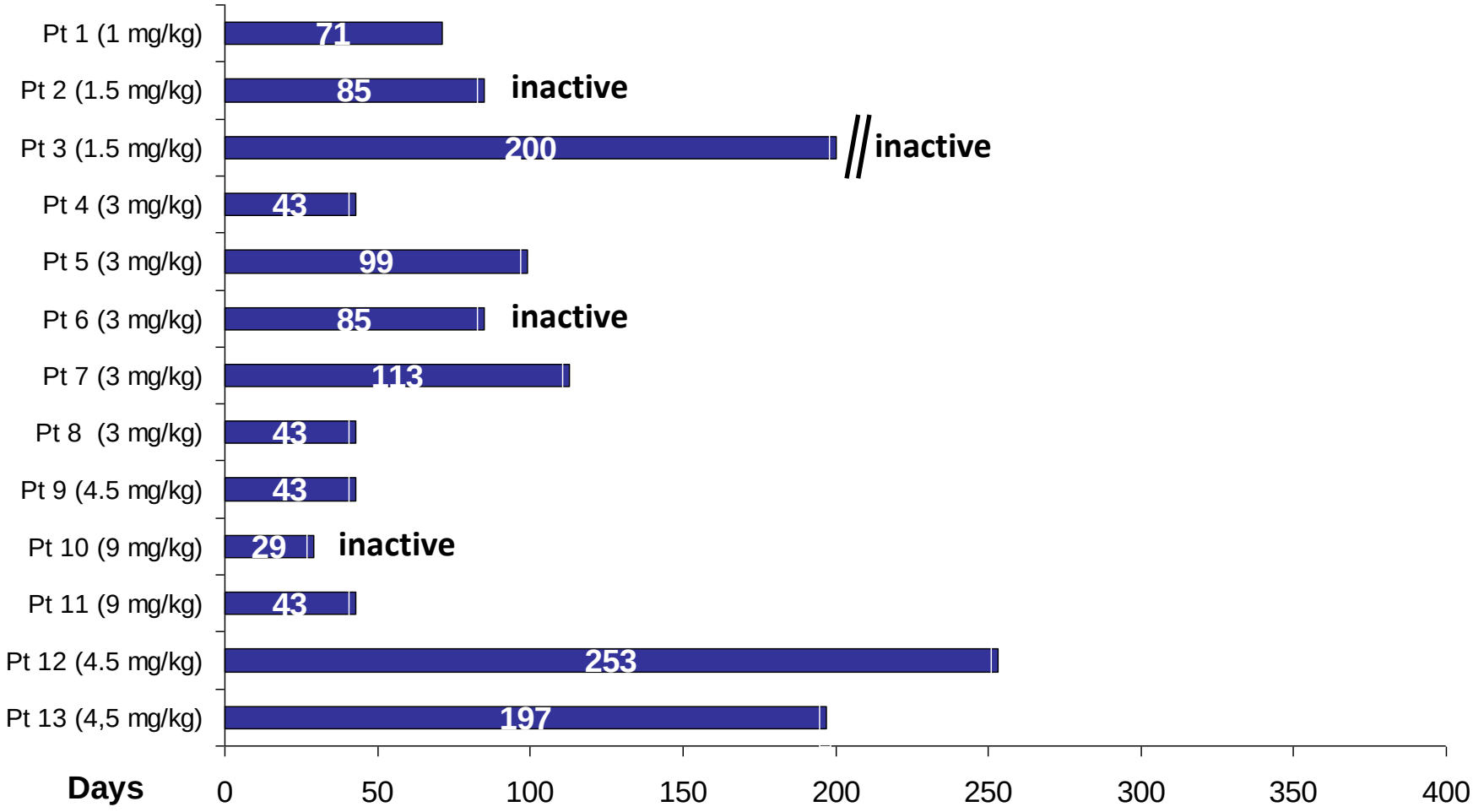
ARTHRITIS & RHEUMATISM
Vol. 64, No. 2, February 2012, pp 557–567
DOI 10.1002/art.33342

A Phase II, Multicenter, Open-Label Study Evaluating Dosing and Preliminary Safety and Efficacy of Canakinumab in Systemic Juvenile Idiopathic Arthritis With Active Systemic Features

Nicolino Ruperto,[1] Pierre Quartier,[2] Nico Wulffraat,[3] Patricia Woo,[4] Angelo Ravelli,[5] Richard Mouy,[2] Brigitte Bader-Meunier,[2] Sebastiaan J. Vastert,[3] Emanuele Noseda,[6] Daniele D'Ambrosio,[6] Jean Lecot,[6] Abhijit Chakraborty,[6] Alberto Martini,[5] and Andrea Chioato,[6] for the Paediatric Rheumatology International Clinical Trials Organisation



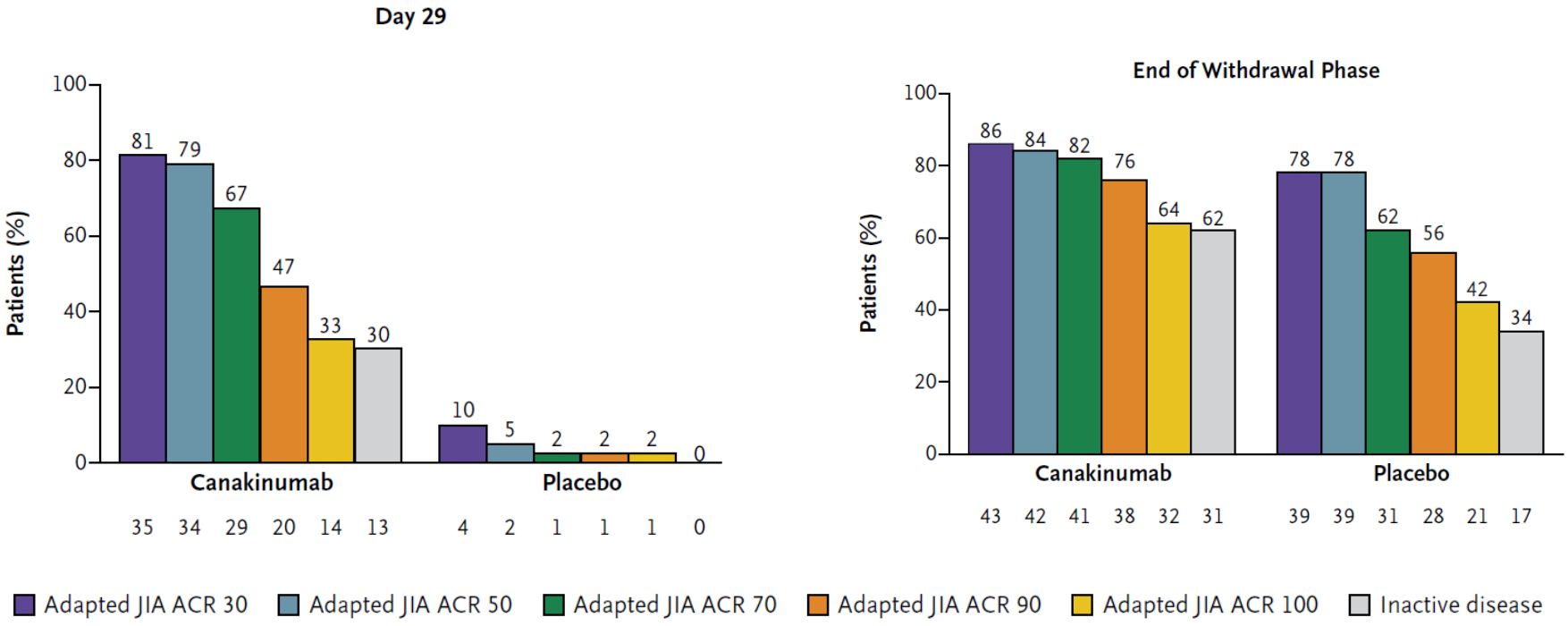
Canakinumab Phase I/II in systemic JIA: time to first flare



ORIGINAL ARTICLE

Two Randomized Trials of Canakinumab in Systemic Juvenile Idiopathic Arthritis

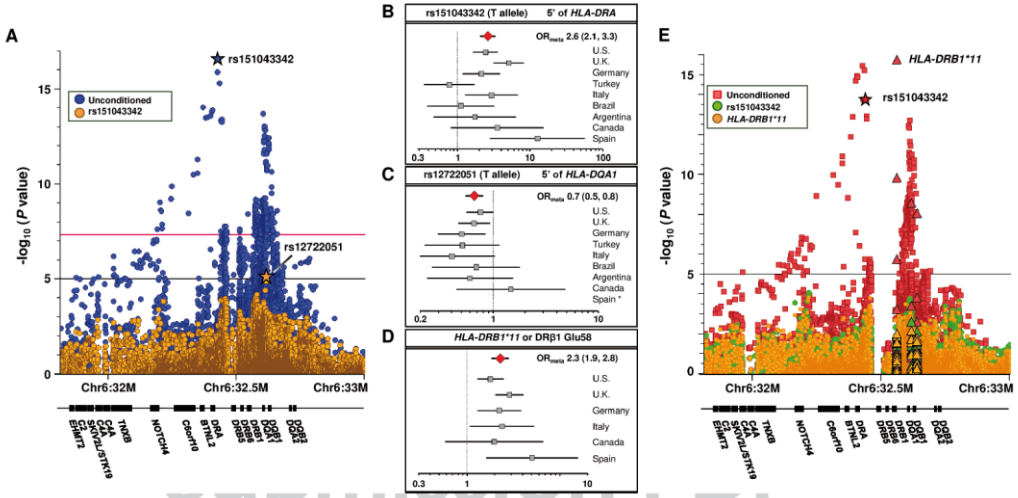
Nicolino Ruperto, M.D., M.P.H., Hermine I. Brunner, M.D., Pierre Quartier, M.D., Tamás Constantin, M.D., Nico Wulffraat, M.D., Gerd Horneff, M.D., Riva Brik, M.D., Liza McCann, M.D., Ozgur Kasapcopur, M.D., Lidia Rutkowska-Sak, M.D., Rayfel Schneider, M.D., Yackov Berkun, M.D., Inmaculada Calvo, M.D., Muferet Erguven, M.D., Laurence Goffin, M.D., Michael Hofer, M.D., Tilmann Kallinich, M.D., Sheila K. Oliveira, M.D., Yosef Uziel, M.D., Stefania Viola, M.D., Kiran Nistala, M.D., Carine Wouters, M.D., Rolando Cimaz, M.D., Manuel A. Ferrandiz, M.D., Berit Flato, M.D., Maria Luz Gamir, M.D., Isabelle Kone-Paut, M.D., Alexei Grom, M.D., Bo Magnusson, M.D., Seza Ozen, M.D., Flavio Sztajnbok, M.D., Karine Lheritier, Ph.D., Ken Abrams, M.D., Dennis Kim, M.D., M.P.H., Alberto Martini, M.D., and Daniel J. Lovell, M.D., M.P.H., for the PRINTO and PRCSG*



*HLA-DRB1*11* and variants of the MHC class II locus are strong risk factors for systemic juvenile idiopathic arthritis

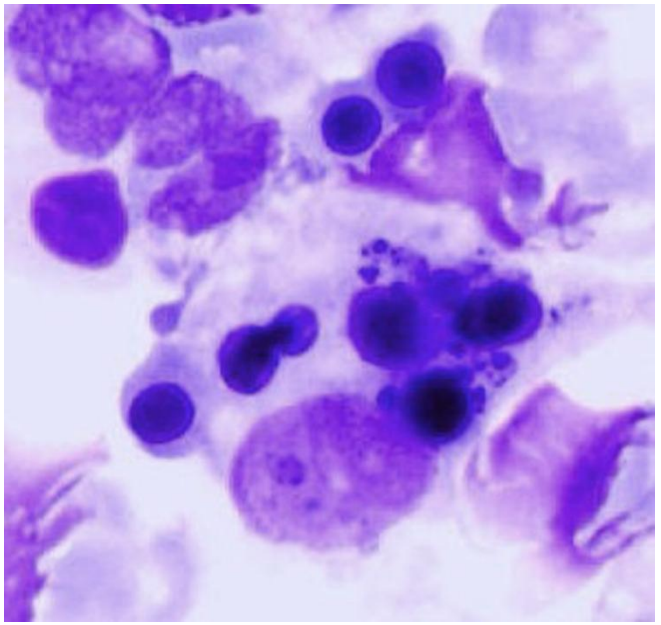
submitted

Michael J. Ombrello[a], Elaine F. Remmers[b], Ioanna Tachmazidou[c], Alexei Grom[d], Dirk Föll[e], Johannes-Peter Haas[f], Alberto Martini[g], Marco Gattorno[h], Seza Ozen[i], Sampath Prahalad[j], Andrew S. Zeft[k], John F. Bohnsack[l], Elizabeth D. Mellins[m], Norman T. Ilowite[n], Ricardo Russo[o], Claudio Len[p], Maria Odete E. Hilario[p], Sheila Oliveira[q], Rae SM Yeung[r], Lucy R. Wedderburn[s], Jordi Anton Lopez[t], Tobias Schwarz[u], Anne Hinks[v], Yelda Bilginer[i], Jane Park[m], Joanna Cobb[v], Colleen Satorius[b], Buhm Han[w], Elizabeth Baskin[a], Richard Duerr[x], J. P. Achkar[x], M. Ilyas Kamboh[k], Kenneth Kaufman[d,y], Leah C. Kottyan[d,y], Dalila Pinto[z], Stephen Scherer[r], Marta Alarcon-Riquelme[aa], Elisa Docampo Martinez[bb], Xavier Estivill[cc], Ahmet Gül[dd], British Society of Pediatric and Adolescent Rheumatology (BSPAR) study group[ee], Childhood Arthritis Prospective Study (CAPS) group[ee], Randomized Placebo Phase Study of Rilonacept in sJIA (RAPPORT) investigators[ee], Sparks-Childhood Arthritis Response to Medication Study (CHARMS) group[ee], Paul I. W. de Bakker[ff,gg], Soumya Raychaudhuri[v,w,ff], Carl Langefeld[hh], Susan Thompson[d], Eleftheria Zeggini[c], Wendy Thomson[v], Daniel L. Kastner[b], and Patricia Woo[s], on behalf of the International Childhood Arthritis Genetics (INCHARGE) Consortium[ee]



Macrophage activation syndrome
(reactive hemophagocytic lymphohistiocytosis)

- Fever (continuous)
- Cytopenia with marked neutropenia
- Acute liver enlargement
- ↑↑AST, ALT, CK
- ↑↑ferritin
- ↑ triglycerides
- Hyponatremia
- Coagulopathy
- CNS dysfunction
- Hemophagocytosis in the MB



Cytokine 61 (2013) 345–348

Contents lists available at SciVerse ScienceDirect

Cytokine

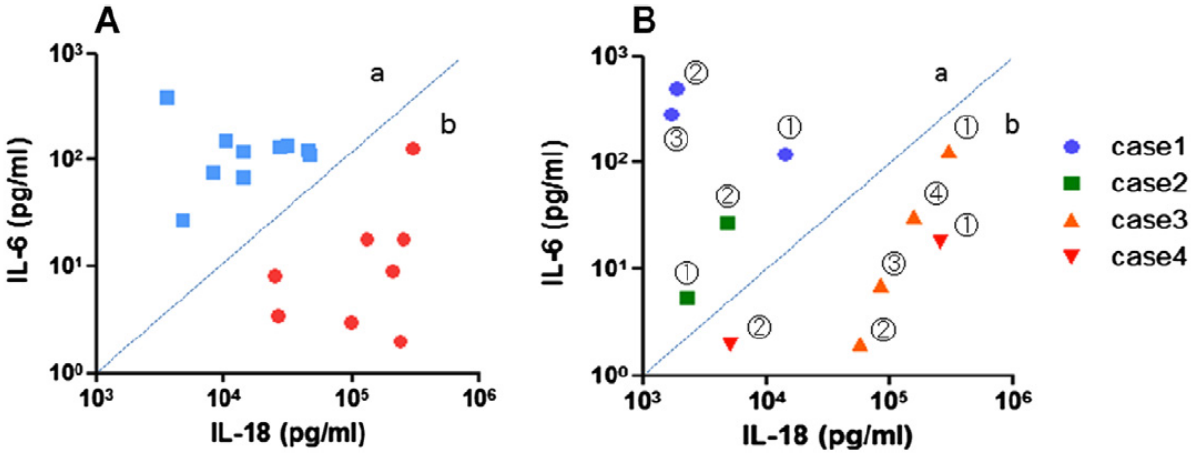
journal homepage: www.journals.elsevier.com/cytokine

Short Communication

Distinct subsets of patients with systemic juvenile idiopathic arthritis based on their cytokine profiles

Masaki Shimizu [a,*], Yasuo Nakagishi [b], Akihiro Yachie [a]

[a] Department of Pediatrics, School of Medicine, Institute of Medical, Pharmaceutical and Health Sciences, Kanazawa University, 13-1 Takara-Machi, Kanazawa 920-8641, Japan
[b] Department of Pediatric Rheumatology, Hyogo Prefectural Kobe Children's Hospital, Kobe, Japan



Arthritis Care & Research
Vol. 65, No. 5, May 2013, pp 745–752
DOI 10.1002/acr.21889

ORIGINAL ARTICLE

Pulmonary Hypertension and Other Potentially Fatal Pulmonary Complications in Systemic Juvenile Idiopathic Arthritis

YUKIKO KIMURA,[1] JENNIFER E. WEISS,[1] KATHRYN L. HAROLDSON,[1] TZIELAN LEE,[2] MARILYNN PUNARO,[3] SHEILA OLIVEIRA,[4] EGLA RABINOVICH,[5] MEREDITH RIEBSCHLEGER,[6] JORDI ANTÓN,[7] PETER R. BLIER,[8] VALERIA GERLONI,[9] MELISSA M. HAZEN,[10] ELIZABETH KESSLER,[11] KAREN ONEL,[12] MURRAY H. PASSO,[13] ROBERT M. RENNEBOHM,[14] CAROL A. WALLACE,[15] PATRICIA WOO,[16] NICO WULFFRAAT,[17] AND THE CHILDHOOD ARTHRITIS AND RHEUMATOLOGY RESEARCH ALLIANCE CARRANET INVESTIGATORS

25 patients: 16 had pulmonary arterial hypertension (PAH), 5 alveolar proteinosis (AP) and 7 interstitial lung disease (ILD)

80% were diagnosed after 2004

20 (80%) patients had MAS during their disease course and 15 (60%) had MAS at pulmonary diagnosis.

17 (68%) patients were taking or recently (<1 month) discontinued a biologic agent at pulmonary symptom onset.

17 (68%) patients died at a mean of 8.8 months from pulmonary diagnosis.

Still's disease

- Some patients (who cannot by definition be classified as sJIA) present with the same systemic features and biologic characteristics but never develop arthritis

- This subgroup of patients lack nowadays any taxonomic definition

- The super imposable systemic clinical features suggest that they have a disease strongly related to sJIA despite the lack of arthritis.

Still's disease

- This type of patients is indeed included in the definition of adult onset Still's disease, where the presence of arthritis is not required for diagnosis.
- I would suggest to include these patients in the sJIA disease category.
- However, given the absence of arthritis, the term sJIA should be changed; an appropriate new name could be Still's disease, by analogy with the adult counterpart, adult onset Still's disease.

	Frequency*	Onset age	Sex ratio
Systemic arthritis	4–17%	Throughout childhood	F=M
Oligoarthritis	27–56%	Early childhood; peak at 2–4 years	F>>>M
Rheumatoid-factor-positive polyarthritis	2–7%	Late childhood or adolescence	F>>M
Rheumatoid-factor-negative polyarthritis	11–28%	Biphasic distribution; early peak at 2–4 years and later peak at 6–12 years	F>>M
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Undifferentiated arthritis	11–21%	..	..

*Reported frequencies refer to percentage of all juvenile idiopathic arthritis.

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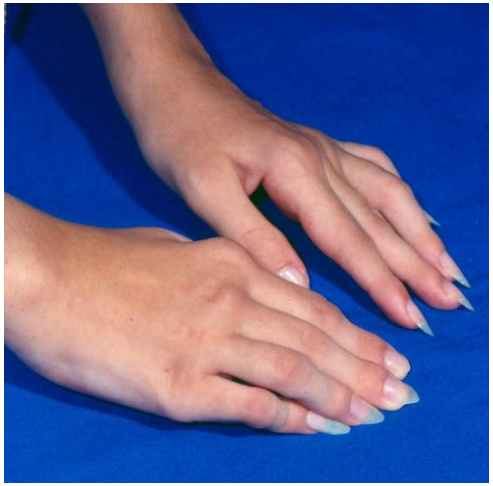
Juvenile idiopathic arthritis

Lancet 2007; 369: 767–78

Angelo Ravelli, Alberto Martini

RF-positive polyarticular JIA

- Clinical, laboratory and genetic features identical to RF-positive adult RA
- Positive antibodies to cyclic citrullinated peptides
- Rare in children



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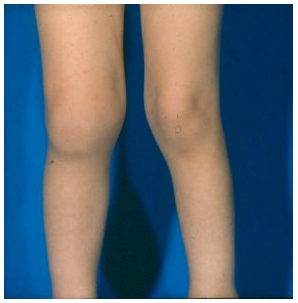
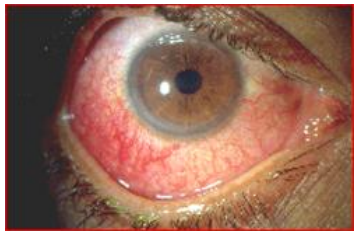
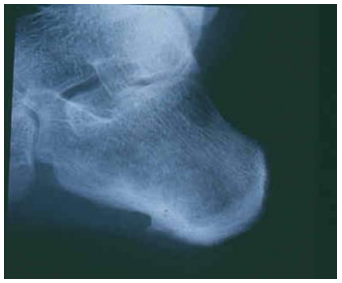
Enthesitis-related arthritis







- Oligoarticular peripheral arthritis (affecting mainly lower limbs)
- Enthesitis
- Dactylitis
- Acute anterior uveitis
- Positive familial history for spondyloarthropathies

Juvenile spondyloarthritis

- All the different forms of adult spondyloarthritis can be observed in children; the major difference is the much higher proportion of undifferentiated spondyloarthritis in childhood.

- The discrepancy in terminology between children and adults has been a source of confusion

- It could be useful in the future to abandon the term enthesitis-related arthritis, which could suggests a form specific of childhood, and use, with the prefix juvenile, the same terminology used to define the adult forms of spondyloarthritis.

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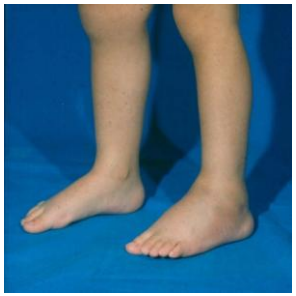
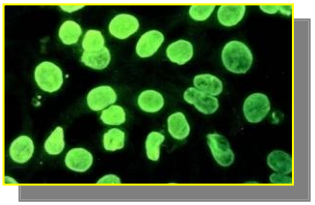
Oligoarticular JIA

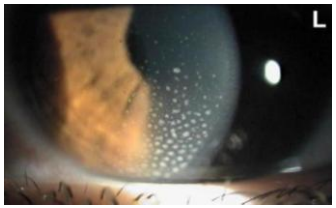
In Western countries the majority of patients **shares several common features** :

asymmetric arthritis at onset
early onset (< 6 years of age),
girls>>>boys
ANA positivity
high risk of chronic anterior uveitis (~ 30%)
HLA associations (DRB1*0801)

This form is observed only in children







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Angelo Ravelli, Alberto Martini

Editorial

Are the Number of Joints Involved or the Presence of Psoriasis Still Useful Tools to Identify Homogeneous Disease Entities in Juvenile Idiopathic Arthritis?

J Rheumatol 2003;30:1900-3

RF-negative polyarticular JIA

- Onset age: **2 peaks**, one during the **first years of life** (mainly girls with usually disease onset before 6 years of age**)** and the other in the **preadolescent age**

- **ANA-positivity** occurred in about 40% of patients and was **strongly associated with early age at onset**

- **Chronic iridocyclitis** was observed with a frequency ranging from 5 to 20% and **was strongly associated** with early age at onset, female sex, ANA positivity and DRB1*0801 (DRw8)

Cassidy JT, et al Arthritis Rheum 1986; Hall PJ, et al J Rheumatol 1989; Fernandez-Vina M, et al Arthritis Rheum 1990; Andersson-Gare B. Pediatrics 1992; Ploski R, et al Arthritis Rheum 1993; Fink CW et al Pediatr Clin North Am 1995

RF-negative polyarticular JIA include at least two distinct diseases

1) a form that resembles adult RF-negative RA and is characterized by a symmetric florid synovitis that affects both large and small joints, onset in school age, elevated ESR, ANA-negativity
2) a form characterized by asymmetric arthritis, early age at onset, female predominance, ANA positivity, elevated risk of developing chronic iridocyclitis, and association with HLA-DRB1.0801. **This form resembles early-onset oligoarticular disease in every respect except for the number of joints affected during the first 6 months of disease**

JIA categories in different populations

- The hypothesis that the early-onset, ANA positive subset of polyarticular RF-negative JIA and ANA positive early-onset oligoarthritis are **the same disease, the former representing a rapid arthritis spread in the latter** is also strongly supported by studies on the frequency of the various JIA subsets in different ethnic populations

- Early-onset, ANA positive, iridocyclitis-associated oligoarticular arthritis is very rare in some countries (Costa Rica, India, New Zealand, and South Africa). **In these same countries, seronegative polyarticular JIA lacks the early-years onset peak, is rarely ANA positive, and is not associated with iridocyclitis**

Aggarwal A, et al Rheumatol Int 1994; Arguedas O, et al J Reumatol 1998

Juvenile psoriatic arthritis (Vancouver criteria = arthritis + psoriasis or some definite psoriatic features)

- **Age at onset: bimodally distributed**, with a **first peak occurring during the preschool years (mainly in girls)** and a second during mid to late childhood (around 10 years)

- Patients with **early onset** are **ANA positive**, may present **chronic iridocyclitis** and show an association with **DRw8**

- The older group of patients with juvenile PsA has a male predominance, shares features of enthesitis related arthritis and therefore **resembles adult psoriatic arthritis**

Shore A, et al J Pediatr 1982; Southwood TR, et al Arthritis Rheum 1989; Petty RE Clin Exp Rheumatol 1994

Editorial

Are the Number of Joints Involved or the Presence of Psoriasis Still Useful Tools to Identify Homogeneous Disease Entities in Juvenile Idiopathic Arthritis?

J Rheumatol
2003;30:1900-3

Suggests a pitfall in JIA classification criteria:

- children with the *same cluster of features* that strongly suggest a common background (*asymmetric arthritis, early onset, female predominance, ANA positivity, high risk for iridocyclitis, association with HLA-DR8*) are classified in *different JIA categories* (oligoarticular persistent, oligoarticular extended, polyarticular seronegative, and psoriatic)
- this common *cluster of features* may be *much more meaningful* to define a homogeneous group of patients than the presence of *polyarticular involvement or psoriasis.*

Suggests a revision of JIA classification criteria:

- *symmetric or asymmetric arthritis, age at onset, ANA positivity* may be *more suitable criteria* for disease classification than the *number of joint involved* or the *presence of psoriasis*

ARTHRITIS & RHEUMATISM
Vol. 52, No. 3, March 2005, pp 826–832
DOI 10.1002/art.20945

Patients With Antinuclear Antibody–Positive Juvenile Idiopathic Arthritis Constitute a Homogeneous Subgroup Irrespective of the Course of Joint Disease

Angelo Ravelli,[1] Enrico Felici,[1] Silvia Magni-Manzoni,[2] Angela Pistorio,[1] Cristina Novarini,[1] Elena Bozzola,[2] Stefania Viola,[1] and Alberto Martini[1]

A total of 256 patients:

190 ANA positive (109 with persistent oligoarthritis, 48 with extended oligoarthritis, and 33 with RF-negative polyarthritis), 66 ANA negative (35 with RF-negative polyarthritis, and 31 with oligoarthritis)

ANA positivity was defined as ≥ 2 positive results at a titer of ≥ 1:160 obtained at least 3 months apart

ANA+ vs ANA- patients with oligo or polyarticular JIA

	ANA+			**ANA-**	
	oligo(p) (n.109)	oligo(e) (n.48)	**poly** (n.33)	**poly** (n.35)	oligo (n.31)
Age at onset	4.3	3.2	3.7	7.9	6.2
Asymmetric arthritis %	83.5	85.4	69.7	17.7	80.7
Iritis %	31.2	29.2	30.3	2.9	3.2
Female %	82.6	81.3	81.8	71.4	71

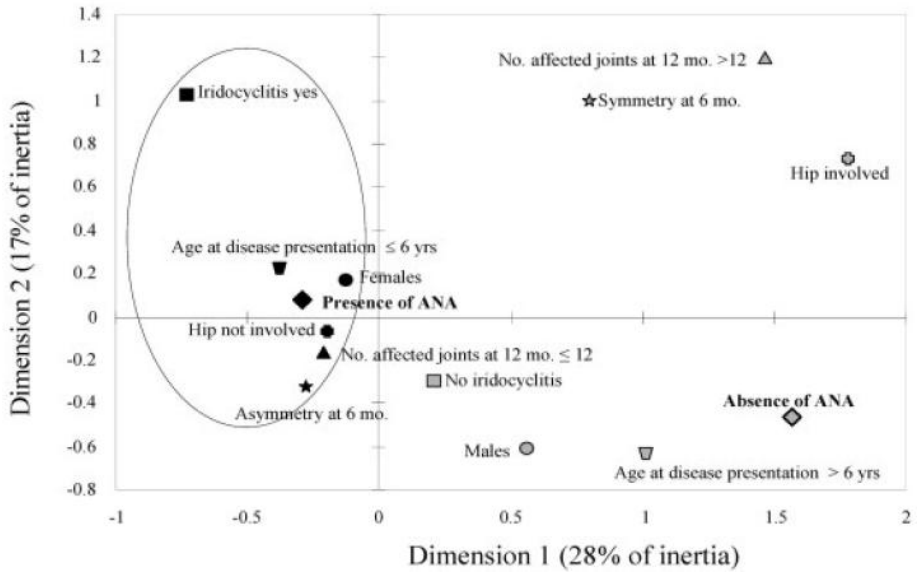
Ravelli et al Arthritis Rheum 2005; 52; 826-32: 2005

Antinuclear Antibody–Positive Patients Should Be Grouped as a Separate Category in the Classification of Juvenile Idiopathic Arthritis

ARTHRITIS & RHEUMATISM
Vol. 63, No. 1, January 2011, pp 267–275

Angelo Ravelli,[1] Giulia C. Varnier,[2] Sheila Oliveira,[2] Esteban Castell,[2] Olga Arguedas,[2] Alessandra Magnani,[2] Angela Pistorio,[2] Nicolino Ruperto,[2] Silvia Magni-Manzoni,[3] Roberta Galasso,[2] Bianca Lattanzi,[2] Sara Dalprà,[2] Antonella Battagliese,[2] Sara Verazza,[2] Maddalena Allegra,[2] and Alberto Martini[1]

971 patients: 711 ANA positive, 149 ANA negative, and 111 with an indeterminate ANA status. Patients with indeterminate ANA status were excluded. **ANA-positive patients in all the different ILAR categories were similar** in terms of age at disease presentation, female-to-male ratio, and frequency of asymmetric arthritis and iridocyclitis



Gene expression profile studies

- **A B-cell gene expression signature is able to distinguish early from late onset JIA regardless of the number of joint involved** *(Barnes MG et al Arthritis Rheum 2010;62:3249-58)*

- Plasma cell infiltration of the synovium is more frequent in ANA positive, early-onset JIA rather than being related to disease activity or severity *(Gregorio A et al Rheumatology 2007; 46:308-13)*

- Another cluster of genes related to **cellular immunity and myeloid cell lineage** had a higher levels of expression in patients **with late-onset oligoarticular JIA**, suggesting therefore that age at onset can be of relevance also in unraveling disease heterogeneity among patients with oligoarticular JIA. *(Barnes MG et al Arthritis Rheum 2010;62:3249-58)*

Patients With Juvenile Psoriatic Arthritis Comprise Two Distinct Populations

ARTHRITIS & RHEUMATISM
Vol. 54, No. 11, November 2006, pp 3564–3572
DOI 10.1002/art.22173

Matthew L. Stoll,[1] David Zurakowski,[1] Lise E. Nigrovic,[1] David P. Nichols,[2] Robert P. Sundel,[1] and Peter A. Nigrovic[3]

139 patients meeting the Vancouver criteria for juvenile PsA
juvenile PsA,

Age at onset was **biphasic**, with peaks occurring at approximately **2 years of age** and again in **late childhood**.

Compared with children ages 5 years and older, **younger patients** are more likely to be **female and to express ANA**.

In contrast, **older patents** tend to manifest **enthesitis**, **axial joint disease**, and **persistent oligoarthritis**.

Vancouver and ILAR criteria for juvenile psoriatic arthritis

- Vancouver

Inclusion: arthritis + psoriasis or arthritis + at least 2 of:

- dactylitis
- nail pits
- psoriasis in a 1st or 2˚ degree relative
- psoriasis-like rash

Exclusion: none

- ILAR

Inclusion: arthritis + psoriasis or arthritis + at least 2 of:

- dactylitis
- nail pits or onycholisis
- psoriasis in a 1° degree relative

Exclusion.:

Arthritis in a B27+ male (>6 year old)

AS, ERA, SI with IBD, ReA or AAU or a history of one of these disorders in a 1st degree relative

The presence of IgM RF on at least 2 occasions at least 3 months apart

Presence of systemic JIA

Texbook of Pediatric Rheumatology (Cassidy, Petty,Laxer, Lindsey Eds) 2011

Arthritis & Rheumatism (Arthritis Care & Research)
Vol. 59, No. 1, January 15, 2008, pp 51–58
DOI 10.1002/art.23240

ORIGINAL ARTICLE

Comparison of Vancouver and International League of Associations for Rheumatology Classification Criteria for Juvenile Psoriatic Arthritis

MATTHEW L. STOLL,[1] PETER LIO,[1] ROBERT P. SUNDEL,[1] AND PETER A. NIGROVIC[2]

Despite apparently modest changes from previous criteria**, ILAR definitions strikingly restrict the diagnosis of PsA in childhood.**

Suggestions for new approaches to JIA classification

- Age at onset and ANA positivity
- Symmetric or asymmetric arthritis (the pace of joint involvement)

- The number of joints involved and the presence of psoriasis could be more useful as descriptors than as main classification criteria

Number of joints involved

- This criterion has **historically been useful** to separate two broad categories of arthritis: those that affect mainly large joints in an asymmetrical way and those that affect both large and small joints in a symmetrical way

- **Not reliable**. It is well known that the total number of joints involved varies with the examiner and that there is a poor concordance between clinical examination and US evaluation

- The number of joints involved can be greatly **affected by disease severity** and therefore may not represent a suitable marker for the definition of a homogeneous JIA subgroup

Arthritis and psoriasis

- PsA represent a unique, defined disease entity
- The association of psoriasis and arthritis may be coincidental
- The presence of psoriasis could enhances the susceptibility to arthritis and/or modifies the disease phenotype

VIEWPOINT

It is time to rethink juvenile idiopathic arthritis classification and nomenclature

Alberto Martini

Ann Rheum Dis 2012;**71**:1437–1439.

JIA

- **Early onset ANA positive**
- Still's disease
- Polyarticular RF+
- Juvenile spondyloarthritis
- ANA- and RF-negative symmetric polyarthritis
- Psoriatic arthritis

Is the term JIA still useful?

- With the exception of early-onset ANA-positive arthritis, which is specific for childhood, the other forms of arthritis appear so far to represent the childhood counterpart of diseases observed also in adults
- The terms JIA may suggest the misleading concept that JIA is a single disease (as it was thought many years ago) and that the various onset-forms (or categories) represent just phenotypic variants
- Since we do not say “adult idiopathic arthritis” to gather together all the forms of chronic arthritis observed in adulthood it is probably no longer appropriate to call JIA all the complex of chronic arthritis that are observed in children

Martini A Ann Rheum Dis 2012;71:1437-9

PRES 2016 IN GENOA September 24-27

THANK YOU