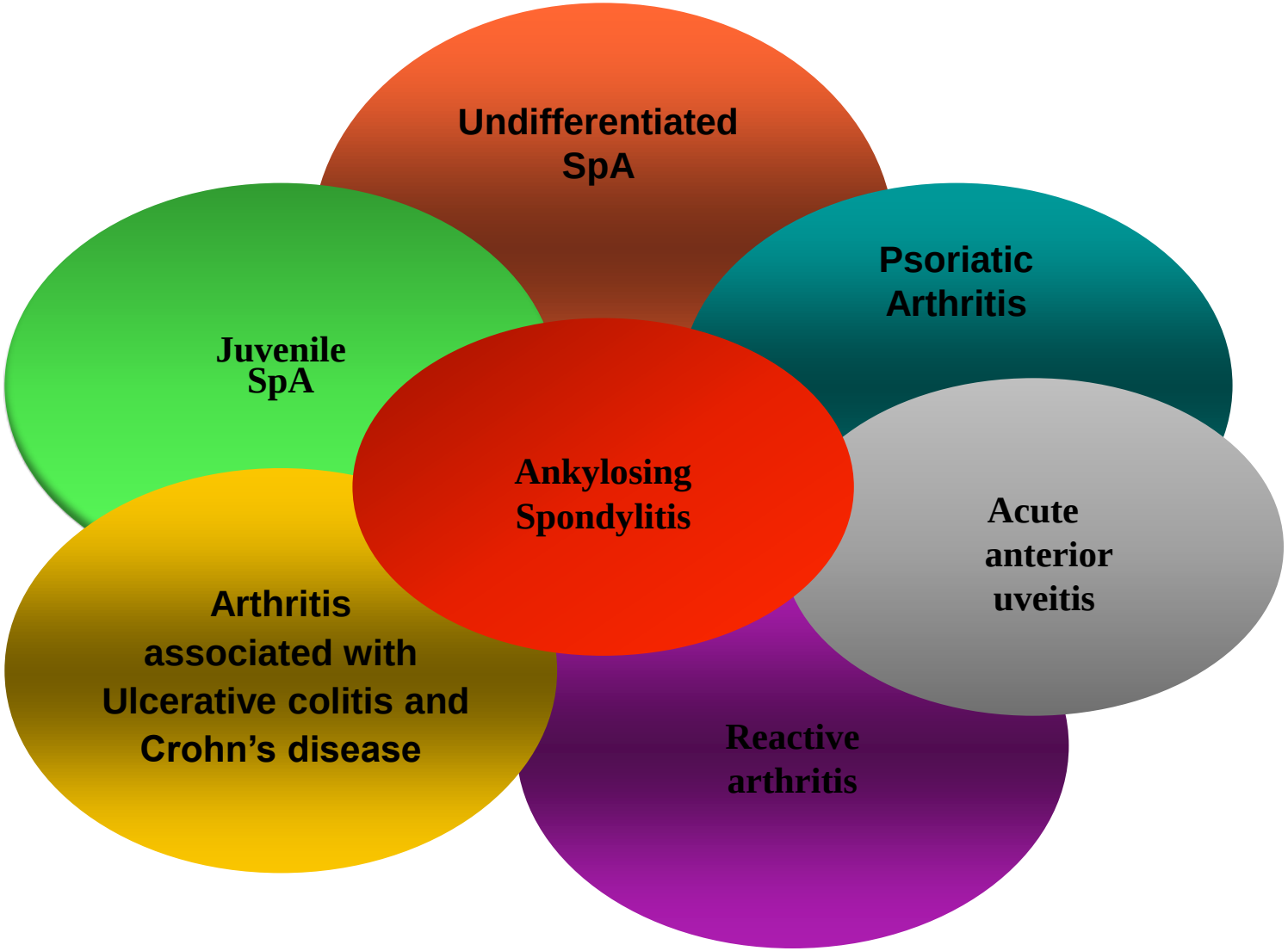
Rheumatology Department of Lucania,
S. Carlo Hospital of Potenza and Madonna delle Grazie Hospital of Matera
Head: Prof. Ignazio Olivieri

Artrite Reattiva

Carlo Palazzi

Resp. UOSD di Reumatologia - Matera

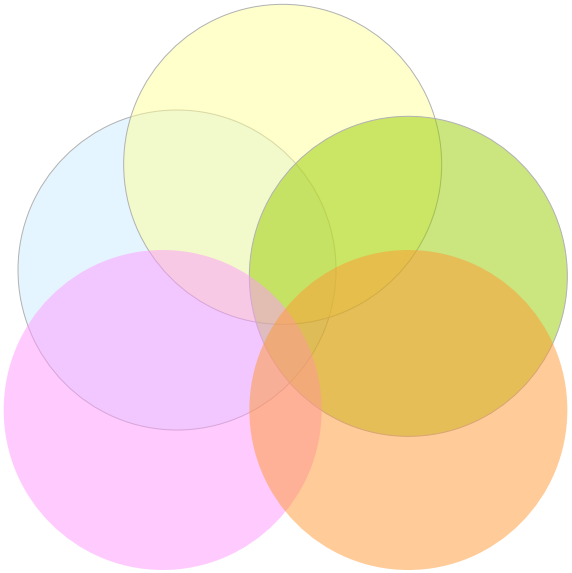
The Spondyloarthritis Complex



Manifestazioni cliniche Scheletriche delle Spondiloartriti

ENTESITE

ARTRITE PERIFERICA



DATTILITE

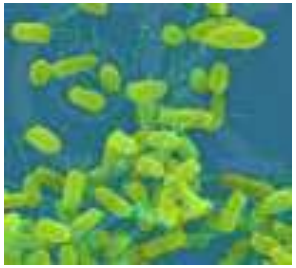
SPONDILITE

SACROILEITE

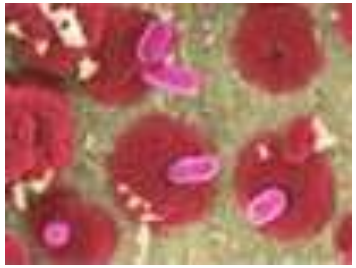
Con il termine di artrite reattiva si indica un’artrite asettica (con germi non coltivabili dal materiale articolare), conseguente ad una infezione localizzata in una sede corporea diversa da quella scheletrica interessata, occorsa 2-4 settimane prima

I germi classicamente coinvolti sono Salmonelle, Shigelle, Campylobacter, Yersinie e Chlamydie (evocano artrite nell'1-20% dei casi)

Ulteriori batteri quali Mycoplasmi ed Ureaplasma o Clostridi possano essere coinvolti nello scatenamento rispettivamente di uroartriti ed enteroartriti

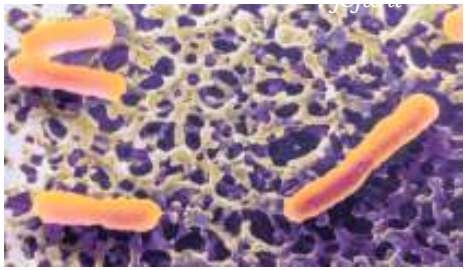


S. enteritidis

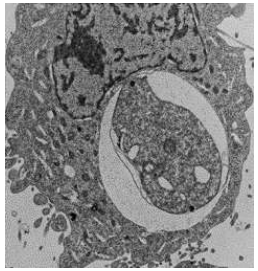


Y. enterocolitica

C. jejuni



S. flexneri



C. trachomatis

Journal
Scandinavian Journal of Rheumatology ›
Volume 35, 2006 - Issue 6

Research article

Potential triggering infections of reactive arthritis

I. Butrimiene ✉, J. Ranceva & A. Griskevicius

Pages 459-462 | Received 15 Apr 2006, Accepted 18 Jun 2006, Published online: 12 Jul 2009

A combination of 2 o 3 pathogens (Chlamydia, Ureaplasma, Mycoplasma hominis) was found in the GU tract of 18% of 120 patients with chronic ReA

Am J Med Sci. 2013 July ; 346(1): . doi:10.1097/MAJ.0b013e3182648740.

C. trachomatis is present and metabolically active during the remitting phase in synovial tissues from patients with chronic *Chlamydia*-induced reactive arthritis

Hervé C. Gérard, PhD[1], **John D. Carter, MD**[2], and **Alan P. Hudson, PhD**[1,*]

[1]Department of Immunology and Microbiology, Wayne State University School of Medicine, Detroit, MI USA

[2]Department of Medicine, Division of Rheumatology, University of South Florida College of Medicine, Tampa, FL USA

Abstract

Background—Patients with chronic *Chlamydia*-induced reactive arthritis (ReA) often show a remitting-relapsing disease phenotype. We have some information regarding bacterial and host responses to one another during active disease but no information for quiescence. We present the first molecular genetic insight into the behavior of bacterium and host during remitting ReA.

Methods—Synovial biopsies were procured from the knees of 4 patients with quiescent ReA by the Parker-Pearson technique. Nucleic acids prepared from them were analyzed by real time PCR and RT-PCR and results compared with data averaged from the knee synovial tissue samples of 10 patients with active ReA.

Results—Real time PCR indicated that bacterial load in remitting samples was ~20% of that in active disease samples. Transcripts from the hsp60 gene were equal to or higher than those seen in active disease. mRNA from the paralog hsp60 genes were equal to/lower than those of active disease. Host mRNA encoding IL-10, TNF α, IFN γwere 4-fold lower than those in active disease samples, while MCP-1, RANTES mRNA levels were equal to or higher.

Conclusions—Bacterial load in synovial tissue of patients with remitting disease is lower than that of active disease, but messengers encoding pro-inflammatory proteins are equal to/higher than those of active disease. Transcription in the host is attenuated for cytokines and chemokines. These initial results demonstrate that organism is present and metabolically active in synovium during the remitting phase of chronic *Chlamydia*-induced ReA, and that the genetic events characterizing quiescence are complex.

INVITED ARTICLE FOOD SAFETY

Frederick J. Angulo, Section Editor

Reactive Arthritis after Enteric Infections in the United States: The Problem of Definition

John M. Townes

Division of Infectious Diseases, Oregon Health & Science University, Portland

Reactive arthritis (ReA) is a concept, not a well defined disease

ReA è conseguente ad infezioni dell'apparato genito-urinario (uroartrite) (M/F 2/1-9/1), dell'intestino (enteroartite) (M/F 1/1) o, assai più raramente, dell'apparato respiratorio

Incidenza annuale 0.6-27/100.000

Cronica se > 6 mesi; 5-20% dura > 1 anno

In letteratura tale definizione viene preminentemente impiegata a proposito di quadri reumatici infiammatori, con elevata prevalenza dell'HLA-B27 (30-80%), che rientrano nell'ambito delle spondiloartriti (SpA)

THE JOURNAL OF BIOLOGICAL CHEMISTRY VOL. 288, NO. 36, pp. 25810–25825, September 6, 2013

Novel HLA-B27-restricted Epitopes from *Chlamydia trachomatis* Generated upon Endogenous Processing of Bacterial Proteins Suggest a Role of Molecular Mimicry in Reactive Arthritis*

Received for publication, June 14, 2013, and in revised form, July 17, 2013 Published, JBC Papers in Press, July 18, 2013, DOI 10.1074/jbc.M113.493247

Carlos Alvarez-Navarro[‡1], Juan J. Cragnolini[‡2], Helena G. Dos Santos[‡3], Eilon Barnea[§], Arie Admon[§], Antonio Morreale[‡4], and José A. López de Castro[‡5]

From the [‡]Centro de Biología Molecular Severo Ochoa, Consejo Superior de Investigaciones Científicas and Universidad Autónoma, Madrid, Spain and the [§]Faculty of Biology, Technion-Israel Institute of Technology, Haifa 32000, Israel

Background: Reactive arthritis is an HLA-B27-associated disease triggered by *Chlamydia trachomatis*.
Results: Three chlamydial peptides endogenously presented by HLA-B27 were identified. All were homologous to human-derived sequences, and one showed conformational similarity to a self-derived HLA-B27 ligand.
Conclusion: Molecular mimicry between chlamydial and self-derived HLA-B27 ligands is not uncommon.
Significance: Molecular mimicry may contribute to the pathology of reactive arthritis.

Tuttavia, non essendovi definizioni universalmente condivise del termine di artrite reattiva, sovente esso viene anche usato per definire artriti asettiche (innescate da batteri, virus o parassiti) che appaiono clinicamente differenti dalle SpA

In tali casi sarebbe più indicato il termine di Artrite Post-Infettiva

Una possibile via di uscita, per evitare confusioni, potrebbe essere quella di introdurre e diffondere il termine di spondiloartrite reattiva (SpA-ReA)

Rheumatology 2005;44:1483–1491
Advance Access publication 9 August 2005
doi:10.1093/rheumatology/kei047

Review

The current concept of spondyloarthritis with special emphasis on undifferentiated spondyloarthritis

J. Zochling, J. Brandt and J. Braun

ReA è di gran lunga la meno frequente delle SpA: 1.2-1.4% in due registri spagnoli

Collantes E, Zarco P, Muñoz E, et al. Disease pattern of spondyloarthropathies in Spain: description of the first national registry (REGISPONSER) extended report. Rheumatology (Oxford) 2007; 46:1309.

Casals-Sánchez JL, García De Yébenes Prous MJ, Descalzo Gallego MÁ, et al. Characteristics of patients with spondyloarthritis followed in rheumatology units in Spain. emAR II study. Reumatol Clin 2012; 8:107

Skeletal manifestations

- Peripheral joints involvement
  - Typical picture: mono-oligoarthritis, mainly involving the lower limbs (polyarthritis also occurs)
- Axial localisation
  - Involvement of sacro-iliac joints (mono or bilateral)
  - Spondylitis (frequently with non-marginal syndesmophytes)
- Soft tissues involvement
  - Enthesitis, bursitis, tenosynovitis and dactylitis

Extra-skeletal manifestations

- Skin and nails
  - Keratoderma blennorrhagicum and other psoriasic-like lesions
- Mucosal disorders
  - Circinate balanitis
  - Sterile urethritis
  - Oral ulcerations
  - Bowel lesions (similar to inflammatory bowel disease)
- Eyes
  - Conjunctivitis
  - Acute anterior uveitis
  - Keratitis (more rare)
- Heart
  - Conduction disturbances
  - Aortic regurgitation
  - Myocarditis and pericarditis (more rare)

Palazzi C et al, Expert Opinion in Pharmacotherapy, 2004

Box 2. Treatment of reactive arthritis.

Systemic drug treatment

First choice agents

- NSAIDs
- Sulfasalazine
- Corticosteroids (methylprednisolone ≤ 40 mg/day that should be tapered quickly, according to the clinical response)
- Tetracyclines (in uroarthritis)

Second choice agents

- Methotrexate, cyclosporin, azathioprine (also in association with the first choice drugs)

In highly selected cases (severe peripheral or axial involvement)

- TNF-α blockers

Local drug treatment

- Intra-articular injections of corticosteroids
- Soft-tissue injections of corticosteroids
- Local applications (e.g., gels, creams) of NSAIDs

Palazzi C et al, Expert Opinion in Pharmacotherapy, 2004

ARTHRITIS & RHEUMATISM
Vol. 63, No. 5, May 2011, pp 1274–1280
DOI 10.1002/art.30272

BRIEF REPORT

Safety and Efficacy of Anti–Tumor Necrosis Factor α Therapy in Ten Patients With Recent-Onset Refractory Reactive Arthritis

Alain Meyer,[1] Emmanuel Chatelus,[1] Daniel Wendling,[2] Jean-Marie Berthelot,[3] Emmanuelle Dernis,[4] Eric Houvenagel,[5] Jacques Morel,[6] Olivier Richer,[7] Thierry Schaeverbeke,[8] Jacques-Eric Gottenberg,[1] and Jean Sibilia,[1] on behalf of the Club Rhumatisme et Inflammation

Objective. **There are few treatments for reactive arthritis (ReA). Since concentrations of tumor necrosis factor α (TNFα) are high in the serum and joints of patients with persistent ReA, this cytokine could be targeted in patients who do not respond to nonsteroidal antiinflammatory drugs (NSAIDs) and disease-modifying antirheumatic drugs (DMARDs). We undertook this study to investigate the safety and efficacy of TNF antagonists in patients with recent-onset and refractory ReA.**

Methods. **All French rheumatology and internal medicine practitioners registered on the Club Rhumatisme et Inflammation web site were asked to report on patients with ReA (defined by the criteria of the Third International Workshop on Reactive Arthritis) who had received anti-TNF therapy within the 12 months following the triggering infection. Tolerance and efficacy were retrospectively assessed using a standardized questionnaire.**

Results. **Ten patients with ReA previously refractory to NSAIDs and DMARDs, for which there was clinical and microbiologic evidence of a triggering bacterial infection, received anti-TNF therapy within a median of 6 months (range 2–12 months) between the beginning of ReA and the initiation of the treatment. The median followup was 20.6 months (range 6–50 months). We observed no severe adverse event and no infection related to the bacterium that triggered the ReA. Anti-TNF therapy was rapidly effective in 9 patients (90%), as shown by the rapid effect on a visual analog scale pain score, tender joint count, swollen joint count, and extraarticular manifestations, and by the corticosteroid-sparing effect.**

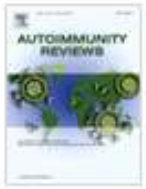
Conclusion. **Anti-TNF therapy appears to be a safe and effective treatment of rheumatic and extraarticular manifestations in patients with recent-onset and refractory ReA, with a corticosteroid-sparing effect. Thus, TNFα could be a relevant target for ReA therapy.**

[1]Alain Meyer, MD, Emmanuel Chatelus, MD, Jacques-Eric Gottenberg, MD, PhD, Jean Sibilia, MD, PhD: Hautepierre Hospital, and Strasbourg University Hospital, Strasbourg, France; [2]Daniel Wendling, MD, PhD: Besançon University Hospital, Besançon, France;

Autoimmunity Reviews

Available online 23 August 2012

In Press, Uncorrected Proof — Note to users



Review

Can we reduce the dosage of biologics in spondyloarthritis?

Ignazio Olivieri[a], Salvatore d'Angelo[a, b], Angela Padula[a], Pietro Leccese[a], Angelo Nigro[a], Carlo Palazzi[a]

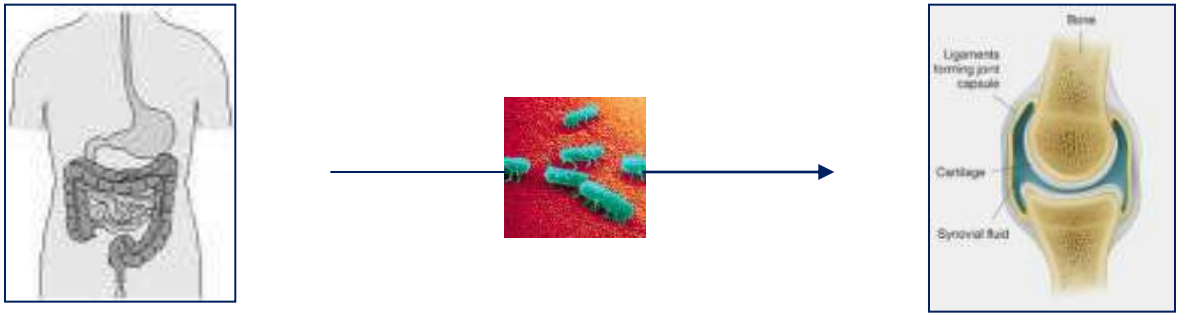
[a] Rheumatology Department of Lucania, San Carlo Hospital of Potenza and Madonna delle Grazie Hospital of Matera, Potenza and Matera, Italy

[b] PhD Scholarship in Health Sciences, Department of Health Sciences, University of Molise, Campobasso, Italy

Antimicrobial Treatments

Hypotheses:

1. **Prolonged migration of micro-organisms from the primitive localization of the infection to the joints**



2. **Intra-articular bacterial slow replication**

The Journal of Rheumatology

The Journal of Rheumatology Volume 40, no. 6

Antibiotics for Treatment of Reactive Arthritis: A Systematic Review and Metaanalysis

Claire E. Barber, Joseph Kim, Robert D. Inman, John M. Esdaile and Matthew T. James

Conclusion. Trials of antibiotic treatment for ReA have produced heterogeneous results that may be related to differences in study design. The efficacy of antibiotics is uncertain. (First Release April 15 2013; J Rheumatol 2013;40:916–28; doi:10.3899/jrheum.121192)

The Journal of Rheumatology

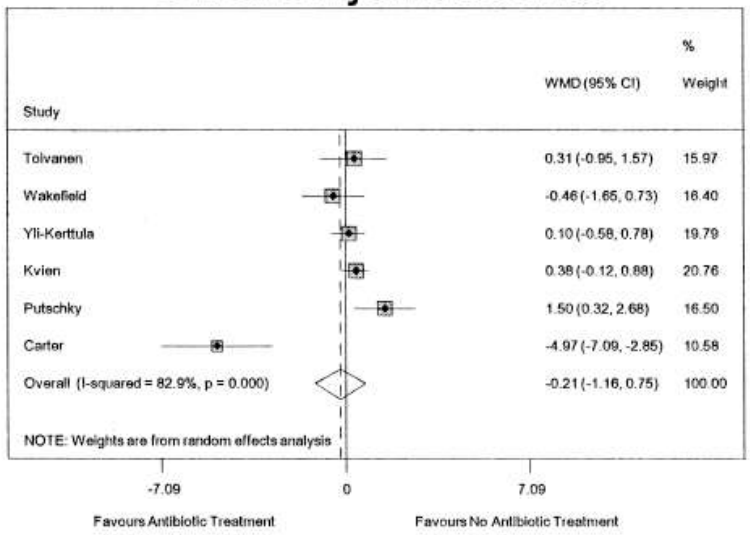
The Journal of Rheumatology Volume 40, no. 6

Antibiotics for Treatment of Reactive Arthritis: A Systematic Review and Metaanalysis

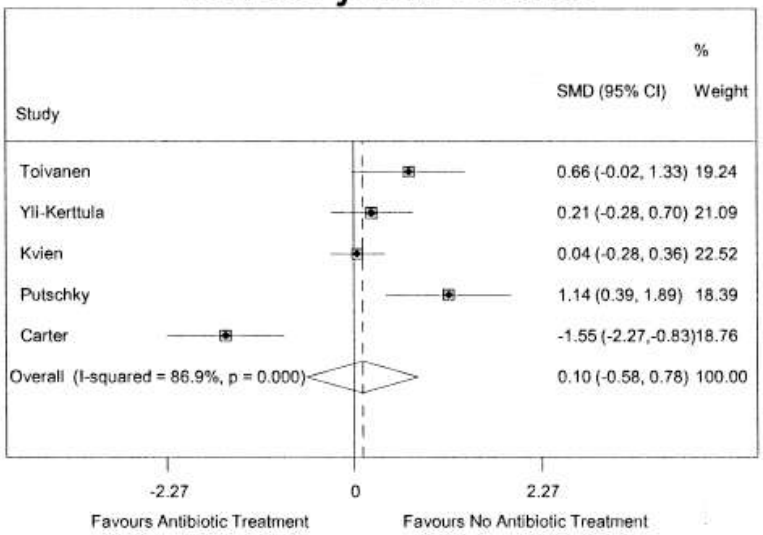
Claire E. Barber, Joseph Kim, Robert D. Inman, John M. Esdaile and Matthew T. James

J Rheumatol 2013:40:916-928

Swollen joint counts



Tender joint counts



Mean duration of arthritis > 10 years

ARTHRITIS & RHEUMATISM
Vol. 62, No. 5, May 2010, pp 1298–1307
DOI 10.1002/art.27394

Combination Antibiotics as a Treatment for Chronic *Chlamydia*-Induced Reactive Arthritis

A Double-Blind, Placebo-Controlled, Prospective Trial

J. D. Carter,[1] L. R. Espinoza,[2] R. D. Inman,[3] K. B. Sneed,[1] L. R. Ricca,[1] F. B. Vasey,[1] J. Valeriano,[1] J. A. Stanich,[4] C. Oszust,[4] H. C. Gerard,[4] and A. P. Hudson[4]

Objective. ***Chlamydia trachomatis*** **and** ***Chlamydophila (Chlamydia) pneumoniae*** **are known triggers of reactive arthritis (ReA) and exist in a persistent metabolically active infection state in the synovium, suggesting that they may be susceptible to antimicrobial agents. The goal of this study was to investigate whether a 6-month course of combination antibiotics is an effective treatment for patients with chronic** ***Chlamydia*****-induced ReA.**

Methods. **This study was a 9-month, prospective, double-blind, triple-placebo trial assessing a 6-month course of combination antibiotics as a treatment for** ***Chlamydia*****-induced ReA. Eligible patients had to be positive for** ***C trachomatis*** **or** ***C pneumoniae*** **by polymerase chain reaction (PCR). Groups received 1) doxycycline and rifampin plus placebo instead of azithromycin; 2) azithromycin and rifampin plus placebo instead of doxycycline; or 3) placebos instead of azithromycin, doxycycline, and rifampin. The primary end point was the number of patients who improved by 20% or more in at least 4 of 6 variables without worsening in any 1 variable in both combination antibiotic groups combined and in the placebo group at month 6 compared with baseline.**

Results. **The primary end point was achieved in 17 of 27 patients (63%) receiving combination antibiotics and in 3 of 15 patients (20%) receiving placebo. Secondary efficacy end points showed similar results. Six of 27 patients (22%) randomized to combination antibiotics believed that their disease went into complete remission during the trial, whereas no patient in the placebo arm achieved remission. Significantly more patients in the active treatment group became negative for** ***C trachomatis*** **or** ***C pneumoniae*** **by PCR at month 6. Adverse events were mild, with no significant differences between the groups.**

Conclusion. **These data suggest that a 6-month course of combination antibiotics is an effective treatment for chronic** ***Chlamydia*****-induced ReA.**

CRITERI CLASSIFICATIVI E DIAGNOSTICI

Non esistono, a tutt'oggi, criteri classificativi (e diagnostici) condivisi per la SpA-ReA

Pertanto esiste l'impossibilità di comparare studi che utilizzano criteri di arruolamento diversi

Inoltre, in sede di esame dei vari studi, si è assistito a continue diatribe sui criteri di inclusione dei Pz che coinvolgono Autori e Referees

Ciò ha scoraggiato la produzione scientifica in tale campo

I primi tentativi di elaborare dei criteri diagnostici per le ReA risalgono agli anni ottanta. Essi si basavano esclusivamente sul riscontro sintomatico di infezioni urinarie od enteriche, cui facevano seguito dei quadri di SpA. All'epoca, era ancora preferito il termine di Sindrome di Reiter e si valorizzavano maggiormente le componenti extra-articolari (cutanee, mucose, oculari) della presentazione clinica

Table 1 Diagnostic criteria for reactive arthritis

Typical peripheral arthritis
Predominantly lower limb, asymmetric oligoarthritis

plus

Evidence of preceding infection
(a) Where clear clinical diarrhoea or urethritis within preceding four weeks, laboratory confirmation is desirable but not essential
(b) Where no clear clinical infection, laboratory confirmation of infection is essential

Exclusion criteria
Patients with other known causes of mono/oligoarthritis, such as other defined spondyloarthropathies, septic arthritis, crystal arthritis, Lyme disease, and streptococcal ReA, should be excluded

The diagnosis of ReA does not require the presence of HLA-B27 or extra-articular features of Reiter's syndrome (conjunctivitis, iritis, skin lesions, non-infectious urethritis, cardiac and neurological features) or typical spondyloarthropathic features (inflammatory back pain, alternating buttock pain, enthesitis, iritis) but these, if present, should be recorded

Annals of the Rheumatic Diseases 1996; 55: 564–570

Third International Workshop on Reactive Arthritis

23–26 September 1995, Berlin, Germany

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An overview

Table 2 Laboratory tests for preceding infection

Stool culture
Helpful if positive; should be routine if previous diarrhoea; stool culture in absence of diarrhoea rarely positive

Urethral culture
Urethral culture often positive in absence of symptoms; need to interpret in light of local asymptomatic carriage rate

Urine/urethral PCR*
These tests can be used, where available, instead of urethral culture or urethral immunofluorescence for bacteria

Serology
Chlamydial IgG of no value because high prevalence in community; rising titre or IgA antibodies useful in presence of non-specific urethritis history

Yersinia, salmonella, and campylobacter antibodies by ELISA: IgG antibodies—a fourfold change in titre or a strongly raised titre (difficult to specify; depends on local situation); IgA or IgM antibodies—may be more specific; useful if >2 standard deviations above control populations

Haemagglutination (Widal) tests for yersinia or salmonella are specific for recent infection but insensitive, especially for salmonella

Shigella serology is of no use because of cross reactivity with *Escherichia coli*

The following tests should currently be regarded as research tools:

Immunofluorescence for bacteria in synovium and proliferation of synovial lymphocytes
These tests are labour intensive and technically difficult tests whose sensitivity and specificity is uncertain. They are unlikely ever to be suitable for routine diagnostic use

PCR for chlamydial DNA in the joint
A potentially valuable test which could be practicable for routine use. Its sensitivity and specificity are being further investigated. This approach cannot currently be used for enteric ReA because it is uncertain whether DNA from enteric organisms reaches the joint

*PCR = polymerase chain reaction.

Workshop Report

J. Rheumatol. 2000; 27: 2185-92

On the Difficulties of Establishing a Consensus on the Definition of and Diagnostic Investigations for Reactive Arthritis. Results and discussion of a questionnaire prepared for the 4th International Workshop on Reactive Arthritis, Berlin, Germany, July 3–6, 1999

JUERGEN BRAUN, GAY KINGSLEY, DESIRÉE van der HEIJDE, and JOCHEN SIEPER

Abstract

OBJECTIVE: There is no agreement on how to classify and diagnose reactive arthritis (ReA) and it is also unclear what kind of specific clinical and laboratory investigations are appropriate. We define relevant points of agreement and identify points of disagreement among an international group of experts in the field.

METHODS: Prior to the 4th International Workshop on Reactive Arthritis, Berlin, July 1999, we sent questionnaires to 42 experts identified by personal knowledge and recent publications.

RESULTS: The response rate was 81% (n = 34). There was agreement on the nomenclature and recommendation to use the term "reactive arthritis" only if the clinical picture and the microbes involved are HLA-B27 and spondyloarthropathy (SpA) associated, whereas the term "infection related arthritis" is used for all other arthritides related to or associated with infections. A differentiation between acute and chronic ReA with a cutoff of 6 months is recommended. The history of a preceding symptomatic infection is thought to be most relevant for a diagnosis of ReA. The minimal interval between preceding symptoms and arthritis is proposed to be 1-7 days, maximally 4 weeks. The joint pattern in ReA is asymmetrical, with predominance of the lower limbs. SpA related symptoms may contribute to the diagnosis. A search for chlamydia in urine/urethra/cervix is recommended, while in the case of diarrhea enterobacteria should be searched for in stool and antibodies against them in serum. There were also areas of disagreement, such as: Is arthritis essential for the diagnosis of ReA?, Is it oligoarthritis or any arthritis?, What are the role and value of polymerase chain reaction investigation?, The role and value of serology?, Is the diagnostic sensitivity of microbiological tests for ReA increased by HLA-B27 determination?

CONCLUSION: The points of agreement will support better communication in this area, and clarification of the disagreements will lead to further studies and discussion.

CRITERI MAGGIORI

1) Artrite (almeno 2 dei seguenti 3)
   - Asimmetrica
   - Interessamento mono od oligoarticolare
   - Interessamento degli arti inferiori

2) Infezione sintomatica antecedente (almeno 1 dei seguenti 2)
   - Enterite (diarrea per almeno 1 giorno, da 3 gg a 6 settimane prima dell'artrite)
   - Uretrite (disuria/incontinenza per almeno 1 giorno, da 3 gg a 6 settimane prima dell'artrite)

CRITERI MINORI

1) Evidenza di infezione scatenante (almeno 1 dei seguenti 2)
   - Positività delle ricerca urinaria o su tampone uretrale/cervicale della Chlamydia trachomatis (mediante metodica LCR)
   - Coprocoltura positiva per uno dei batteri intestinali ARe-correlati

2) Evidenza di infezione sinoviale persistente
   - Positività della ricerca della Chlamydia trachomatis (mediante metodica PCR)

DEFINIZIONE DIAGNOSTICA DI ARe

ARe definita: 2 criteri maggiori + 1 criterio minore

ARe probabile: 2 criteri maggiori oppure 1 criterio maggiore + almeno 1 criterio minore

ELEMENTI ULTERIORI DI CLASSIFICAZIONE

In rapporto alla localizzazione dell'infezione scatenante: a) Uroartrite; b) Enteroartrite

In rapporto alla durata dell'artrite: ARe acuta (durata ≤ 6 mesi); ARe cronica (durata ≥ 6 mesi).

CRITERI DI ESCLUSIONE

Esclusione di altre affezioni reumatiche definite, mediante anamnesi, esame obiettivo e la esecuzione (almeno) dei seguenti esami: esame microscopico (+ ricerca cristalli) e colturale del liquido sinoviale (quando disponibile); fattore reumatoide; ANA; se opportuno: anticorpi anti-Borrelia burgdorferi ed anti-streptococco; ricerca radiologica di condrocalcinosi; valutazione radiologica della riduzione dello spazio articolare.

Limiti

Criteri Maggiori

1. Presenza poliartriti ed interessamento degli arti superiori
2. Presenza di infezioni asintomatiche
3. Solo uretrite?

Criteri Minori

1. Affidabilità diversa dei vari metodi di indagine
2. Elevata prevalenza di infezioni (Chlamydia, Ureaplasma Mycoplasmi) nella popolazione “sana”
3. Difficile uso della ricerca della Chlamydia a livello sinoviale

Reumatismo, 2002; 54(2):105-112

RASSEGNA

Artriti reattive: attualità in tema di diagnosi e terapia

Reactive arthritis: advances in diagnosis and treatment

C. Palazzi[1], I. Olivieri[2], C. Salvarani[3], E. D'Amico[4], G. Alleva[1], P. Vitullo[1], A. Petricca[1]

CRITERI MAGGIORI
1) Artrite (almeno 2 dei seguenti 3) – Asimmetrica – Interessamento mono od oligoarticolare – Interessamento degli arti inferiori 2) Infezione sintomatica antecedente (almeno 1 dei seguenti 2) – Enterite (diarrea per almeno 1 giorno, da 3 gg a 6 settimane prima dell'artrite) – Uretrite (disuria/incontinenza per almeno 1 giorno, da 3 gg a 6 settimane prima dell'artrite)
CRITERI MINORI 1) Evidenza di infezione scatenante (almeno 1 dei seguenti 2) – Positività delle ricerca urinaria o su tampone uretrale/cervicale della Chlamydia trachomatis (mediante metodica LCR) – Coprocoltura positiva per uno dei batteri intestinali ARe-correlati 2) Evidenza di infezione sinoviale persistente – Positività della ricerca della Chlamydia trachomatis (mediante metodica PCR)
DEFINIZIONE DIAGNOSTICA DI ARe ARe definita: 2 criteri maggiori + 1 criterio minore ARe probabile: 2 criteri maggiori oppure 1 criterio maggiore + almeno 1 criterio minore
ELEMENTI ULTERIORI DI CLASSIFICAZIONE In rapporto alla localizzazione dell'infezione scatenante: a) Uroartrite; b) Enteroartrite In rapporto alla durata dell'artrite: ARe acuta (durata ≤ 6 mesi); ARe cronica (durata ≥ 6 mesi).
CRITERI DI ESCLUSIONE Esclusione di altre affezioni reumatiche definite, mediante anamnesi, esame obiettivo e la esecuzione (almeno) dei seguenti esami: esame microscopico (+ ricerca cristalli) e colturale del liquido sinoviale (quando disponibile); fattore reumatoide; ANA; se opportuno: anticorpi anti-Borrelia burgdorferi ed anti-streptococco; ricerca radiologica di condrocalcinosi; valutazione radiologica della riduzione dello spazio articolare.

Original paper

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Incidence of *Chlamydia trachomatis* infection in patients with reactive arthritis

Iwona Ostaszewska-Puchalska[1,2], Bożena Zdrodowska-Stefanow[3], Anna Kuryliszyn-Moskal[4], Violetta Bułhak-Kozioł[1], Marianna Sokołowska[1]

[1]Diagnostic-Research Centre of Sexually Transmitted Diseases, Bialystok, Poland
[2]The State Higher School of Computer Science and Business Administration, Institute of Medicine, Lomza, Poland
[3]Department of Dermatology and Venerology, Medical University of Bialystok, Poland

Conclusions:

1. *Chlamydia trachomatis* is a common bacterial factor observed in the genitourinary system of patients with ReA. The outcomes of studies within the Podlaskie province indicate less frequent presence of chlamydial infection compared with Dolnośląskie province.
2. No correlations between detecting the presence of *C. trachomatis* in the urogenital tract and the presence of specific antibodies in the serum of ReA patients were observed.
3. Concurrent direct studies of the urogenital tract and a serological blood test increase the chance of detecting *C. trachomatis* infection.

Original Article

Diagnosis of *Chlamydia trachomatis* in patients with reactive arthritis and undifferentiated spondyloarthropathy

Praveen Kumar[1], Darshan Singh Bhakuni[2], Sangita Rastogi[1]

[1] *Microbiology Laboratory, National Institute of Pathology (ICMR), Safdarjung Hospital Campus, New Delhi, India*
[2] *Department of Rheumatology and Clinical Immunology, Army Hospital (Research and Referral), New Delhi, India*

Abstract

Introduction: There is a paucity of information on the frequency of *Chlamydia trachomatis*-induced reactive arthritis (ReA) and undifferentiated spondyloarthropathy (uSpA) in India. In this study, arthritic patients suffering from ReA, uSpA, and rheumatoid arthritis (RA) were screened to investigate the presence of *C. trachomatis* infection in the synovial fluid (SF) or serum by molecular and non-molecular methods.

Methodology: A total of 76 arthritic patients with ReA (n = 16) and uSpA (n = 22) composed the study group while those with RA (n = 38) served as controls. The detection of *C. trachomatis* DNA was done by semi-nested PCR (snPCR) and nested PCR (nPCR) targeting two different genes of *C. trachomatis*, namely major outer membrane protein and plasmid, respectively. The presence of serum or SF immunoglobulin IgG and IgA antibodies against *C. trachomatis* was studied by commercial enzyme-linked immunosorbent assay kits.

Results: The SF from 9 of 38 (23.6%) patients (5 with ReA and 4 with uSpA) was positive for at least one *C. trachomatis* DNA by snPCR or nPCR in comparison to RA (1/38 [2.6%]; p value < 0.05). There was no correlation between the snPCR or nPCR and the serological results of patients with ReA or uSpA.

Conclusions: As molecular diagnostic techniques established intra-articular *C. trachomatis* infection among this group of seronegative spondyloarthropathies in India, these findings should be viewed with concern, and snPCR or nPCR should be considered for a more reliable diagnosis.

Key words: *Chlamydia trachomatis*; reactive arthritis; undifferentiated spondyloarthropathy; synovial fluid

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The Assessment of SpondyloArthritis international Society classification criteria for peripheral spondyloarthritis and for spondyloarthritis in general

M Rudwaleit,[1] D van der Heijde,[2] R Landewé,[3] N Akkoc,[4] J Brandt,[5] C T Chou,[6] M Dougados,[7] F Huang,[8] J Gu,[9] Y Kirazli,[10] F Van den Bosch,[11] I Olivieri,[12] E Roussou,[13] S Scarpato,[14] I J Sørensen,[15] R Valle-Oñate,[16] U Weber,[17] J Wei,[18] J Sieper,[1,19]

Ann Rheum Dis 2011;**70**:25–31. doi:10.1136/ard.2010.133645

I criteri classificativi ASAS per le SpA periferiche fanno riferimento a *uretrite/cervicite o diarrea entro 1 mese prima della comparsa di artrite/entesite/dattilite*

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M Rudwaleit,[1] D van der Heijde,[2] R Landewé,[3] N Akkoc,[4] J Brandt,[5] C T Chou,[6] M Dougados,[7] F Huang,[8] J Gu,[9] Y Kirazli,[10] F Van den Bosch,[11] I Olivieri,[12] E Roussou,[13] S Scarpato,[14] I J Sørensen,[15] R Valle-Oñate,[16] U Weber,[17] J Wei,[18] J Sieper,[1,19]

Ann Rheum Dis 2011;**70**:25–31. doi:10.1136/ard.2010.133645

Anche prostatiti, epididimiti, vaginiti e salpingiti, quando sostenute dai batteri “giusti”, possono innescare in individui predisposti una SpA-ReA ed inoltre, in una percentuale di casi non trascurabile, l’infezione trigger rimane sub-clinica. L’uso di tali criteri anche per la fase diagnostica appare problematico

Microb Pathog. 2010 February ; 48(2): 62. doi:10.1016/j.micpath.2009.11.004.

Patients with *Chlamydia*-associated arthritis have ocular (trachoma), not genital, serovars of *C trachomatis* in synovial tissue

Hervé C. Gerard[a], **Jessica A. Stanich**[a], **Judith A. Whittum-Hudson**[a], **H. Ralph Schumacher**[b], **John D. Carter**[c], and **Alan P. Hudson**[a,*]

[a]Dept. Immunology and Microbiology, Wayne State University School of Medicine, Detroit, Michigan USA

[b]Dept. Medicine, Division Rheumatology, University of Pennsylvania Medical School, Philadelphia, Pennsylvania USA

[c]Dept. Medicine, Division Rheumatology, University of South Florida School of Medicine, Tampa, Florida USA

The development of Assessment of SpondyloArthritis international Society classification criteria for axial spondyloarthritis (part II): validation and final selection

M Rudwaleit,[1] D van der Heijde,[2] R Landewé,[3] J Listing,[4] N Akkoc,[5] J Brandt,[6] J Braun,[7] C T Chou,[8] E Collantes-Estevez,[9] M Dougados,[10] F Huang,[11] J Gu,[12] M A Khan,[13] Y Kirazli,[14] W P Maksymowych,[15] H Mielants,[16] I J Sørensen,[17] S Ozgocmen,[18] E Roussou,[19] R Valle-Oñate,[20] U Weber,[21] J Wei,[22] J Sieper[1,23]

Ann Rheum Dis 2009;**68**:777–783. doi:10.1136/ard.2009.108233

I criteri classificativi ASAS per le SpA assiali non prendono proprio in considerazione precedenti triggers infettivi, malgrado un coinvolgimento assiale (rachide e sacro-iliache) non sia infrequente nelle SpA-ReA

CONCLUSIONI

1. Con gli strumenti attuali, verosimilmente molte SpA-ReA sfuggono ancora alla classificazione e comunque non esistono criteri classificativi condivisi (quante sono inquadrate come altre SpA?)

1. Sono del tutto assenti criteri accettati per la diagnosi delle SpA-ReA

2. È auspicabile una consensus conference di esperti internazionali per cercare di individuare strumenti diagnostici e classificativi condivisi

Grazie