

there appearance forces the clinician to consider the possibility of rhombencephalitis.⁴ Regarding immunosuppressive treatment of the patients in the series by Horta-Baas et al., five cases had previously received MMF but none rituximab.¹ Four cases of meningitis/encephalitis due to *L. monocytogenes* associated to rituximab have been published, all of them in adult patients with an underlying hematologic malignant process.^{5,6} Infection with *L. monocytogenes* in pSLE is rare, found in the literature only in a 5 year old patient with type IV lupus nephritis, neurologic alterations and antiphospholipid syndrome who developed bacteremia due to *L. monocytogenes*, treated and solved with ampicillin.⁷ One aspect that is also interesting in our patient is the subsequent appearance of other severe neurologic infections after the administration of rituximab.

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Walter Alberto Sifuentes Giraldo,^{a,*} Carlos Antonio Guillén Astete,^a Irene Amil Casas,^b María Luz Gámir Gámir^a

^a Servicio de Reumatología, Hospital Universitario Ramón y Cajal, Madrid, Spain

^b Centro de Salud Benita de Ávila, Madrid, Spain

* Corresponding author.

E-mail address: albertosifuentesg@gmail.com

(W.A. Sifuentes Giraldo).

Genetic Characteristics of Rheumatic Patients Developing Inflammatory Skin Lesions Induced by Biologic Therapy[☆]



Características genéticas de pacientes reumatológicos que desarrollan lesiones cutáneas inflamatorias inducidas por fármacos biológicos

Dear Editor,

The appearance of inflammatory skin lesions (ISL), induced by biological drugs, mainly cutaneous psoriasis, has been extensively described.^{1–3} The hypothesis is that in patients with genetic susceptibility present an activation of alternative inflammatory pathways such as interferon- α 1.2, but this has not been demonstrated and no genetic studies in these patients exist.

We conducted a prospective observational study analyzing genetic data from patients of the Rheumatology Department of the Hospital del Mar (Barcelona) who developed *de novo* ISL due to biological therapy between January 2008 and December 2012.

The demographic and clinical variables evaluated were: age, sex, diagnosis of ISL, rheumatic disease and duration (in years), biologic drug employed and time from onset to the start of the drug (weeks). Genetic variables were the presence of HLA-B27, HLA-DR1, HLA-DR4 and HLA-DR7 alleles (detected by standard PCR), HLA-CW6 (Sanger sequencing using the indirect marker rs4406273) and the deletion of two genes *late cornified envelope* (LCE), LCE3C.LCE3B-del (with a multiplex PCR experiment⁴). Fifteen patients who developed ISL (prevalence 2.5%) were included. They had a mean age of 43.9 \pm 12.4 years and 73.3% were female. The diagnoses of ISL were: seven skin psoriasis (five palmoplantar pustulosis, one with psoriasis *vulgaris* and one with *guttata*), three alopecia areata, two cutaneous lupus, one eczema, one suppurative hidradenitis

and one with erythema multiforme. Rheumatological diagnoses were: three rheumatoid arthritis, ankylosing spondylitis 6, four non-radiological axial spondyloarthritis and two psoriatic arthritis, mean disease duration of 13.1 \pm 7.4 years. Biologic drugs were eight cases using adalimumab, etanercept in four, infliximab in two and abatacept in one, with a mean time of onset of 57.1 \pm 62.1 weeks.

Genetically, seven patients had HLA-B27, four were HLA-CW6 positive (26%), only one with psoriasis, one positive HLA-DR1, another HLA-DR4 and six HLA-DR7 positive patients (40%), three with psoriasis. In four patients (26.7%) two LCE3C-LCE3B deleted alleles were detected and 11 (73.3%) had one deleted allele (Table 1). LCE3C.LCE3B allele frequency was 63.6%.

The low proportion of patients with the presence of HLA-CW6 and HLA-DR7 alleles (especially in cases of psoriasis) stands out, lower than that found in populations of cutaneous psoriasis,^{5–7} which could be due to the predominant type of psoriasis, palmoplantar pustulosis, since the average age of patients was older than 40 years (HLA-CW6 and HLA-DR7 alone have been associated with type I psoriasis, with an onset before 40 years of age, and with the *vulgaris* and *guttate* subtypes⁵).

In our series, the presence of the deletion of the two LCE genes (allele frequency of 63.6%) was consistent with the frequently seen in population samples with inflammatory diseases (62%–70%) but higher than that reported in control populations (55%–60%).^{4,8–10} But what stands out is that all patients with ISL had at least one copy of the LCE3C.LCE3B deleted alleles (absence of non-deleted homozygous individuals). In the general population, the frequency of non-deleted homozygotes is around 18%^{4,9,10} and disruption of the skin barrier occurs in relation to the number of copies of LCE3C.LCE3B, being undetectable in carriers of the homozygous deletion⁴ and reduced in heterozygotes.

This observational study of a series of cases of ISL induced by biological drugs and is the first to include genetic data, although further studies are needed with larger numbers of patients and a control group to better study this process and help establish if there a pattern of genetic susceptibility as in the case of LCE3C.LCE3B deletions.

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Table 1
Genetic Characteristics of Patients with Cutaneous Lesions Induced.

ISL	N.p. Total	N.p. HLA-B27+	N.p. HLA-CW6+	N.p. HLA-DR1+	N.p. HLA-DR4+	N.p. HLA-DR7+	LCE 3C-LCE 3B-del D+/D+	LCE 3C-LCE 3B-del D+/D-
Skin psoriasis	7	4	1	1	0	3	3	4
Alopecia areata	3	1	1	0	0	1	1	2
Cutaneous lupus	2	0	1	0	0	1	0	2
Eczema	1	1	0	0	0	1	0	1
Hydradenitis	1	1	0	0	0	0	0	1
Erythema multiforme	1	0	1	0	1	0	0	1
Total	15	7	4	1	1	6	4	11

LCE 3B-3C-LCE del, deletion of the late cornified envelope; ISL, induced skin lesions; N.p., number of patients; +, positive; D+, deleted; D-, non-deleted.

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Conflict of Interest

The authors have no conflict of interest to state.

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Miriam Almirall,^{a,*} Elisa Docampo,^b Xavier Estivill,^b Joan Maymó^a

^a Servicio de Reumatología, Hospital del Mar, Parc de Salut Mar, Universidad Autónoma de Barcelona, Barcelona, Spain

^b Genomics and Disease Group, Centro de Regulación Genómica (CRG), Instituto Municipal de Investigación Médica (IMIM), Barcelona, Spain

* Corresponding author.

E-mail address: REU0802@parcdesalutmar.cat (M. Almirall).

Usefulness of Ultrasound in Jaccoud's Arthropathy. A Case Report[☆]



La ecografía en la artropatía de Jaccoud. A propósito de un caso

To the Editor,

Joint involvement is one of the initial manifestations in most patients with systemic lupus erythematosus (SLE); ranging from joint pain to severe deforming arthritis.¹ Within the deforming types, non erosive forms, such as *Rhupus* and others such as Jaccoud's arthropathy (JA),² non-erosive in principle, occurs in 10%–35% of patients with SLE.³

Ultrasound has proven superior to clinical examination in detecting joint and tendon inflammatory activity in patients with SLE.² We report a patient with SLE and JA in which this technique was useful in the assessment of disease.

The patient is a 40-year-old woman from Honduras diagnosed with SLE 4 years prior and, has presented during her evolution, joint pain and arthritis of small proximal joints of the hands, wrists,

knees and elbows; scarring alopecia; Raynaud's phenomenon and subacute cutaneous lupus erythematosus lesions. She had positive antinuclear antibodies (1/1280), anti-dsDNA, anti-Sm, anti-RNP and anti-CCP (high titers); anemia of chronic diseases and complement consumption. From the onset of the disease she has been treated with hydroxychloroquine, methotrexate and prednisone.



Fig. 1. Left hand of the patient with Jaccoud's arthropathy where ulnar deviation of the 5th finger and swan neck deformity of fingers 2–5 is appreciated.

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