

SUPPLEMENTARY MATERIALS AND METHODS

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1.- Study population

A total of 6,485 patients were recruited from the Immune-Mediated Inflammatory Disease Consortium (IMIDC).¹ The IMIDC is a Spanish network of clinical researchers aimed at characterizing the genetic basis of autoimmune diseases. All patients were collected from the outpatient's clinics of more than 80 departments of rheumatology, dermatology and gastroenterology from 51 Spanish University Hospitals belonging to the IMIDC. The patients included in the autoimmunity cohort used for the present study are described as follows:

- Rheumatoid arthritis (RA, $n = 1,281$ patients): All RA patients satisfied the American College of Rheumatology (ACR) classification criteria for RA² and had >2 years of follow-up since diagnosis.
- Psoriasis (PS, $n = 1,123$ patients): All PS patients had >18 years at the time of sample collection and were diagnosed based on dermatologist clinical criteria,³ with chronic plaque psoriasis affecting torso and/or extremities with at least one year of duration.
- Psoriatic arthritis (PA, $n = 989$ patients): All PA patients fulfilled the Classification Criteria for Psoriatic Arthritis (CASPAR)⁴ and were >18 years old, although the disease could have started earlier in life.
- Systemic lupus erythematosus (SLE, $n = 907$ patients): All SLE patients were diagnosed using the 1982 revised ACR criteria for SLE diagnosis,⁵ were >16 years old at the time of sample collection and had >3 years of evolution from the diagnosis date.

- Inflammatory bowel disease (IBD, $n = 2,185$ patients): IBD patients include 1,358 CD patients and 827 UC patients, which were >18 years old and diagnosed using the Lennard-Jones criteria.⁶

2.- CVD Phenotypes

Clinical and epidemiological data were collected following a standard protocol of medical questionnaires. Clinical data about traditional CVD risk factors were exhaustively collected using the medical questionnaires. Using these data, the traditional CVD risk factors were defined for autoimmune disease patients as follows:

- Arterial hypertension. Was diagnosed based on usage of ongoing therapy for hypertension, systolic blood pressure ≥ 140 mm Hg and/or diastolic blood pressure ≥ 90 mm Hg.⁷
- Diabetes mellitus type 2. Fasting plasma glucose >126 mg/L (7.0 mmol/L) or 2-hour plasma glucose >200 mg/dL (11.1 mmol/L) during an oral glucose tolerance test.⁸
- Dyslipidemia. Presence of one or more of the following conditions: triglyceride (TG) > 200 mg/dL, high-density lipoprotein (HDL-C) cholesterol < 40 mg/dL, low-density lipoprotein (LDL) cholesterol > 130 mg/dL and treatment with antilipemic agents.⁹
- Body mass index (BMI). Body mass (Kg) divided by the square of the body height (m).¹⁰
- Smoking. Smokers at the moment of sample collection.
- Physical inactivity. Full-time sitting-down/standing jobs (with reduced physical activity) and free-time with no/occasionally physical exercise.

3.- References

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