Original article

Adherence to treatment in patients with systemic lupus erythematosus

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ABSTRACT

Background and objective: Non-adherence to treatment is usually a clinical problem in patients with systemic lupus erythematosus (SLE). Increasing the knowledge of predictors of treatment adherence can be meaningful in the clinical setting. The main objective of the present study was to analyze the influence of sociodemographic, clinical and psychological variables on the degree of treatment adherence in a sample of Spanish women with SLE.

Patients and method: This is an observational–transversal study. All participants were evaluated for the degree of treatment adherence, their clinical status, psychopathological manifestations, the level of perceived stress and self-efficacy. The sample was divided into two groups (adherent vs non-adherent). The factors associated with a lack of adherence in this sample were analyzed by means of logistic regression.

Results: This study comprises 72 women with SLE (average age \( \pm 36.72 \pm 12.2 \) years). Almost 64\% of patients with SLE were non-adherent to treatment. The results showed that a low educational level, being unemployed, living with a partner and alcohol abuse were associated with low treatment adherence. There were significant mean differences between groups in psychopathological subscales of somatization, obsession–compulsion and general psychopathological indices. There were also mean differences between groups for the level of perceived stress. The use of non-steroidal anti-inflammatory drugs, suffering arthritis and scoring higher in dimensions of psychopathology were significant predictors of treatment adherence, explaining between 35\% and 47\% of its variability.

Conclusions: Including the clinical and psychopathological manifestations as important aspects in the clinical reasoning of health professionals could improve the adherence to treatment of patients with SLE.

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Adherencia al tratamiento en pacientes con lupus eritematoso sistémico

RESUMEN

Antecedentes y objetivo: El incumplimiento terapéutico constituye un importante problema asistencial en pacientes con lupus eritematoso sistémico (LES). Conocer los factores asociados de este puede ser de gran utilidad en el ámbito clínico. El objetivo de esta investigación fue analizar la influencia de las variables sociodemográficas, clínicas y psicológicas sobre la adherencia al tratamiento en una muestra española de mujeres con LES.

Palabras clave:
Lupus eritematoso sistémico
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### Introduction

Systemic lupus erythematosus (SLE) is a chronic disease that occurs with alternating periods of clinical activity and periods of remission. For this reason, patients with SLE usually require medical treatment on a regular basis.1 Therapeutic noncompliance supposes an important health care problem in these patients.2 Several studies have revealed numerous negative consequences associated with poor adherence to treatment, such as poorer clinical outcomes (higher risk of relapse, hospitalization and mortality), poorer general quality of life, higher healthcare costs and greater patient and healthcare staff dissatisfaction.3,4,5

Adherence is defined as the level of agreement between the patient's behavior (taking medication, following an intervention program, modifying a lifestyle or adhering to treatment recommendations) and the medical or healthcare staff prescription.2,3,6,7 The lack of adherence to treatment usually occurs during the clinical course of almost all chronic diseases and tends to get worse if the treatment is prolonged.2 The rate of non-compliance with pharmacological treatment in patients with SLE can range between 3 and 76%, depending on the evaluation methods used.2,3,8 The methodological differences in the design of the studies and the heterogeneity in the selection of variables and evaluation tools have not allowed to calculate with precision the degree of adherence in these patients.9 For these reasons, research on the prevalence of adherence to various drugs and/or biological agents in SLE has not shown conclusive results.

To date, SLE is a chronic disease. However, thanks to a growing and more effective therapeutic arsenal that includes analgesics and non-steroidal anti-inflammatories (NSAIDs), antimalarial agents such as hydroxychloroquine (HCQ), corticosteroids, immunosuppressants and biological treatments, disease symptoms and activity can be controlled in order to minimize irreversible chronic damage and improve survival and quality of life.

The lack of adherence in patients with SLE has been associated with different factors, such as sociodemographic, personal, treatment, environmental or health personnel characteristics.2,3,7,9–11 First, age, socioeconomic status, education level, ethnicity, beliefs or motivation of the patient have been identified as sociodemographic factors.7,9,12,13 On the other hand, clinical factors related to pharmacological treatment have been recognized, such as dosage, route of administration, duration, adverse effects and the complexity of the treatment administration.5,9 In addition to organizational factors associated with health services, such as continuity in healthcare, appointment scheduling and the possibility of monitoring adherence to treatment. Greater continuity and adequate communication in patient care are related to a greater likelihood of adherence.5

As far as we know, there is no study that has verified the influence that psychopathological levels, stress and perceived self-efficacy can have on adherence to treatment in Spanish patients with SLE. This knowledge would contribute to a better care and facilitate an adequate intervention on therapeutic non-compliance in our environment.2,14 Therefore, the main objective of this study is to evaluate the degree of adherence to medical treatment in a sample of Spanish women with SLE, as well as to detect the possible influence of sociodemographic, clinical and psychological factors on adherence in these patients.

### Patients and methods

#### Subjects

The sample consisted of 72 women diagnosed with SLE, belonging to the Unit of Systemic Autoimmune Diseases of the Internal Medicine Service of the Virgen de las Nieves University Hospital of Granada. The inclusion criteria were, to fulfill 4 or more diagnostic criteria of SLE (according to the American College of Rheumatology), to be a woman, to be between the ages of 18 and 65, to be able to read and write and to have at least one of the following drugs prescribed during the previous year: prednisone, HCQ, methotrexate, azathioprine, mycophenolate, cyclosporine or leflunomide and NSAIDs. The exclusion criteria were being pregnant and difficulties to complete the evaluation.

The design and execution of this study has been carried out in accordance with the principles of the Declaration of Helsinki, in its 2013 revision. The study was approved by the Clinical Research Ethics Committee of the Virgen de las Nieves University Hospital of Granada. Participants received the patient information leaflet, revocation of consent and informed consent form. The privacy rights of these patients were taken into account at all times.

#### Tools

All the tests used in the study have been validated versions in Spanish.

#### Adherence to treatment

The Haynes–Sackett test was used to evaluate adherence to treatment. This test has 2 parts: the first consists of avoiding a direct question to the patient about taking the medication, since it would automatically answer that she is taking it. During the second part of the test, the patient is asked the following question: “Most people have difficulty taking the tablets, do you have difficulty taking all of your own tablets?” If the answer is positive, the average number of forgotten tablets over a period of time is requested (the last 7 days or the last month) and the compliance percentage is determined...
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