Rheumatology, 2023, **62**, 2030–2031
https://doi.org/10.1093/rheumatology/keac655
Advance access publication 21 November 2022
Editorial

British Society for Rheumatology RHEUMATOLOGY OXFORD

Editorial

Clinical observation: are nightmares a manifestation of neuropsychiatric lupus?

Neuropsychiatric lupus remains one of the most challenging SLE manifestations to diagnose and characterize accurately. There is a huge spectrum of neuropsychiatric symptoms and signs that can be observed in patients with SLE. The ACR described 19 syndromes that can occur, and none are specific for SLE and nor do they necessarily require immunosuppressive therapy [1].

Making a definite diagnosis of neuropsychiatric lupus can be challenging even in expert centres with multidisciplinary teams including rheumatologists, neurologists, psychiatrists and neuroradiologists. Attributing a particular psychiatric, neurological or psychological symptom to lupus rather than a concomitant disorder or medication, for example corticosteroids, can be very difficult indeed.

Many years of assessing patients with neuropsychiatric lupus have taught us to listen carefully to patients using sensitive history-taking skills and to look for emerging patterns and themes. The majority of patients, especially adolescent and young adult SLE patients, will not volunteer symptoms such as hallucinations that might point to a psychosis. Patients are fearful that the clinician will diagnose a serious mental health disorder and admit them to a psychiatric ward and prescribe powerful antipsychotic agents, with all the stigma that may be attached to such a diagnosis.

One approach that has proved useful in assessing a patient suspected of having neuropsychiatric lupus is to start by asking about the quality of their sleep. Most patients with SLE will respond by saying that they have problems with sleep. Indeed, poor sleep patterns are very common in SLE and can contribute to debilitating fatigue. In one study of 120 patients, 59% had abnormal scores on the Philadelphia Sleep Quality Index [2].

At the bedside, asking whether the patient has suffered with nightmares often elicits a startling response. Many patients describe frightening nightmares involving physical threats to them or their families or alarming experiences such as relatives dying in car or aeroplane accidents or large objects hurtling towards them.

The next step could be to ask whether the patient has experienced nightmares while awake. The term ‘daymare’ describes a frightening and uncontrollable fantasy or a florid daydream experienced while awake [3].

This term provides a useful route to asking gently about visual, auditory, tactile or olfactory hallucinations. In our experience, this is often a ‘lightbulb’ moment; the patient immediately understands what is being asked and this leads to an open discussion of potentially psychotic and related symptoms that could be a presentation of neuropsychiatric lupus. While visual hallucinations seem more common in autoimmune diseases, patients also report unusual smells such as smoke or burning rubber and absence episodes that could indicate temporal lobe epilepsy.

Nightmare disorder is characterized by repeated nightmares. The dream content of these nightmares is remembered on awakening and can cause significant distress or impairment, including a subsequent fear of going back to sleep through fear that the nightmare may continue or re-occur [4]. Nightmare disorder is associated with diverse psychiatric disorders such as psychosis and post-traumatic stress disorder [5].

There is a report of nightmare disorder in inflammatory arthritis [6] but to our knowledge, nightmares have not been described in association with neuropsychiatric lupus.

How do we interpret this interesting observation? It may be that nightmares and disrupted sleep patterns, especially if they have developed since the diagnosis of SLE, may indicate heightened cerebral arousal related to the immunological inflammation associated with SLE. There is abundant evidence that neuropsychiatric lupus is associated with autoantibody and cytokine production within the central nervous system and disruption of the blood–brain barrier [7]. For example, elevated levels of cytokines such as Type 1 interferons and IL-6 have been described in the cerebrospinal fluid of patients with neuropsychiatric lupus [7].

While these anecdotal clinical vignettes of nightmares have provided a useful handle to exploring neuropsychiatric symptoms in SLE, we have begun to investigate these observations using a systematic approach. In association with colleagues in neurology, psychiatry, patient charities and patient groups, we designed a survey eliciting the frequency, impact, timing and response to treatment of 36 neuropsychiatric symptoms. Many of these have never been explored before in rheumatology patients.

An online cohort of >1800 SLE and other patients with inflammatory autoimmune rheumatic diseases has been assembled. This will provide a unique opportunity to explore the prevalence of nightmares and other neuropsychiatric symptoms experienced by SLE patients using objective structured questionnaires and in-depth interviews.

Our preliminary data suggests that nightmares and other neuropsychiatric symptoms are much more commonly experienced by SLE patients compared with a cohort of their socio-demographically matched physically healthy friends.

Accepted: 8 November 2022

The frequency of neuropsychiatric symptoms in general is also significantly under-estimated by clinicians, in agreement with our previous research demonstrating that >50% of rheumatology patients never/rarely report these symptoms [8]. Patient and clinician interviews will add further explanations as to why the more unusual symptoms, such as nightmares, mania and hallucinations are rarely elicited/reported. The reticence to discuss psychiatric symptoms may be the result of often difficult diagnostic journeys, where physical symptoms of lupus are often misattributed to mental health problems or health anxiety [9].

It will be important to understand whether nightmares are a non-specific phenomenon in SLE that may be commonly observed in other inflammatory autoimmune rheumatic diseases or if they are a marker of the development of neuropsychiatric lupus. If this is indeed the case, it would be useful to explore the development of nightmares as a manifestation of neuropsychiatric lupus that could respond to anti-inflammatory and immunosuppressive therapy.

It is probable that specific questioning in clinic, using non-judgemental and non-threatening language such as daymares, may reveal these symptoms are far more frequent than expected. Gently encouraging our patients to talk about these, often distressing, symptoms in a safe nurturing environment can be extremely therapeutic and reassuring for them. It is important to reassure the patient that these neuropsychiatric symptoms can be a feature of active SLE that may be very treatable and that they are not 'going mad'.

In conclusion, ascertaining the prevalence and clinical significance of nightmares and daymares in patients with SLE could potentially assist with the correct diagnosis and treatment of neuropsychiatric lupus.

Data availability

Certain non-identifiable data will be available on request once analysis is complete and subsequent INSPIRE papers have been published.

Funding

This editorial is the first in a series of studies from the INSPIRE (Investigating Neuropsychiatric Symptoms in Rheumatology Patient Experiences) research project funded by The Lupus Trust and LUPUS UK.

Disclosure statement: D.P.D'C. reports receiving consulting fees from GSK and UCB and is receipt of research grant support from the MRC. M.S. has declared no conflicts of interest.

David P. D'Cruz[1,2,*], Melanie Sloan[3]

[1]The Louise Coote Lupus Unit, Guy's and St Thomas' Hospitals NHS Foundation Trust, London, UK
[2]School of Immunology & Microbial Sciences, King's College London, London, UK
[3]Behavioural Science Group, Institute of Public Health, University of Cambridge, Cambridge, UK

*Correspondence to: David P. D'Cruz, The Louise Coote Lupus Unit, Guy's and St Thomas' Hospitals NHS Foundation Trust and Kings College London, Guy's Hospital, Great Maze Pond, London SE1 9RT, UK. E-mail: david.d'cruz@kcl.ac.uk

References

1. ACR Ad Hoc Committee on Neuropsychiatric Lupus Nomenclature. The American College of Rheumatology. Arthritis Rheum 1999;42:599–608.
2. Tench CM, McCurdie I, White PD, D'Cruz DP. The prevalence and associations of fatigue in systemic lupus erythematosus. Rheumatology 2000;39:1249–54.
3. Merriam Webster Dictionary. https://www.merriam-webster.com/ (10 October 2022, date last accessed).
4. Stefani A, Högl B. Nightmare disorder and isolated sleep paralysis. Neurotherapeutics 2021;18:100–6.
5. Van Schagen A, Lancee J, Swart M, Spoormaker V, van den Bout J. Nightmare disorder, psychopathology levels, and coping in a diverse psychiatric sample. J. Clin. Psychol 2017;73:65–75.
6. Baldelli L, Addimanda O, Burattini M *et al.* Nightmare disorder and REM sleep behavior disorder in inflammatory arthritis: possibility beyond neurodegeneration. Brain Behav 2019;9:e01230.
7. Lindblom J, Mohan C, Parodis I. Biomarkers in neuropsychiatric systemic lupus erythematosus: a systematic literature review of the last decade. Brain Sci 2022;12:192.
8. Sloan M, Harwood R, Gordon C *et al.* Will 'the feeling of abandonment' remain? Persisting impacts of the COVID-19 pandemic on rheumatology patients and clinicians. Rheumatology 2022;61:3723–36.
9. Sloan M, Harwood R, Sutton S *et al.* Medically explained symptoms: a mixed methods study of diagnostic, symptom and support experiences of patients with lupus and related systemic autoimmune diseases. Rheumatol Adv Pract 2020;4:rkaa006.