

## Assessment of neuropsychiatric symptoms in patients with systemic lupus erythematosus

Sirs,

We have read the article in which Tani *et al.* describe neuropsychiatric questionnaires useful in assessment of SLE patients (1) with great interest. The article constitutes a valuable review of methods useful in daily clinical practice. However, on the basis of literature and our significant clinical experience with SLE patient populations, we believe it is worth raising some additional questions related to the article discussed.

As has been noted by the authors, cognitive impairment is one of the most common neuropsychiatric (NP) manifestations in SLE patients. Its assessment and monitoring is recommended in routine clinical care (2). Thus, neuropsychological batteries with proved usefulness in the diagnosis of cognitive impairment in SLE populations are especially valuable. In our previous study involving numerous group of patients with SLE and neuropsychiatric SLE (NPSLE) we distinguished an 8-test first-choice battery, which occurred to be especially useful in detecting cognitive deficits in SLE patients (3, 4). Also, we excluded tests, the usefulness of which is limited in these patients. The results also seemed to reveal that the battery can be useful in preliminary differentiating SLE patients with neuropsychiatric manifestations and without them (3). The battery assessing the mainly affected functions in SLE is presented in Table I. As our experience shows, the battery is also useful in prospective evaluation of cognitive function in patients with connective tissue diseases.

Another important aspect that should be highlighted in the context of neuropsychological assessment is the estimation of the patient's general intellectual functioning as well as knowledge of premorbid IQ (5). Both these important issues were mentioned in American College of Rheumatology recommendations for NP manifestations of SLE (4). As it is emphasised, diagnosis of cognitive impairment demands comparison between the estimated premorbid IQ and the present cognitive functioning, es-

**Table I.** Eight-test first-choice neuropsychological battery for cognitive deficits diagnosis in SLE patients.

---

Vocabulary subtest from Wechsler Adult Intelligence Scale-Revised (WAIS-R)
Trail Making Test, part A and B
Auditory Verbal Learning Test
Stroop Colour-Word Interference Test
Rey-Osterrieth Complex Figure Test
Benton Visual Retention Test
WAIS-R Digit Symbol
WAIS-R Block Design

---

pecially in the case of secondary dysfunction, lack of normative data and results of previous neuropsychological examination (4, 5). Thus, neuropsychological batteries should include a method which allows assessment of general intelligence as well as an estimation of premorbid IQ. Inclusion of the WAIS-R Vocabulary subtest or the New Adult Reading Test meets these recommendations (3-5).

In their article, Tani *et al.* mentioned some limitations of the depressive symptom assessment in SLE patients using general questionnaires. Taking this into consideration, the Hospital Anxiety and Depression Scale (HADS) needs to be mentioned as it is one of the methods that proved useful in somatically ill patients (6). The main advantage of HADS is that it does not contain questions concerning somatic symptoms and, as a result, the probability of a false positive diagnosis is minimalised (7). HADS contains 14 questions (7 for depressive and 7 for anxiety symptoms). The scale has been widely used in SLE (3, 8-10) and NPSLE patients (3).

In conclusion, we found the article by Tani *et al.* very useful, especially from a clinician's point of view. We also believe that our contribution constitutes an important addition to the original article. The lack of validation studies on particular methods and/or their language adaptations can hinder their common use. Thus, the wider the range of methods, the easier it would be for clinicians to choose the most suitable available method. Consequently, it would also enable research development and its methodological quality.

K. NOWICKA-SAUER<sup>1</sup>

A. HAJDUK<sup>2</sup>

<sup>1</sup>Department of Family Medicine, and  
<sup>2</sup>Department of Internal Medicine, Connective Tissue Diseases and Geriatrics, Medical University of Gdańsk, Poland.

Please address correspondence to:

Katarzyna Nowicka-Sauer,  
Department of Family Medicine,  
Medical University of Gdańsk,  
2 Dębinki St.,  
80-211 Gdańsk, Poland.

E-mail: kpsauer@gumed.edu.pl

Competing interests: none declared.

## References

1. TANI C, MORAES-FONTES MF, CARLI L, MAURI M, BOMBARDIERI S, MOSCA M: Neuropsychiatric questionnaires in systemic lupus erythematosus. *Clin Exp Rheumatol* 2014; 32 (Suppl. 85): S59-S64.
2. MOSCA M, TANI CH, ARINGER M *et al.*: EULAR recommendations for monitoring systemic lupus erythematosus patients in clinical practice and in observational studies. *Ann Rheum Dis* 2010; 69: 1269-74.
3. NOWICKA-SAUER K, CZUSZYŃSKA Z, SMOLEŃSKA Z, SIEBERT J: Neuropsychological assessment in systemic lupus erythematosus patients: clinical usefulness of first-choice diagnostic tests in detecting cognitive impairment and preliminary diagnosis of neuropsychiatric lupus. *Clin Exp Rheumatol* 2011; 29: 299-306.
4. ACR AD HOC COMMITTEE OF NEURO-PSYCHIATRIC LUPUS NOMENCLATURE: The American College of Rheumatology nomenclature and case definition for neuropsychiatric lupus syndromes. *Arthritis Rheum* 1999; 42: 599-608.
5. LEZAK MD: Neuropsychological assessment. 5<sup>th</sup> ed., New York, Oxford University Press, 2012.
6. ZIGMOND AS, SNAITH RP: The Hospital Anxiety and Depression Scale. *Acta Psychiatr Scand* 1983; 67: 361-70.
7. JOHNSTON M, POLLARD B, HENNESSEY P: Construct validation of the hospital anxiety and depression scale with clinical populations. *J Psychosom Res* 2000; 48: 579-84.
8. HOLLOWAY L, HUMPHREY L, HERON L *et al.*: Patient-reported outcome measures for systemic lupus erythematosus clinical trials: a review of content validity, face validity and psychometric performance. *Health Qual Life Outcomes* 2014; 12: 116.
9. CALDERON J, FLORES P, BABUL M *et al.*: Systemic lupus erythematosus impairs memory cognitive tests not affected by depression. *Lupus* 2014; 10: 1042-53.
10. SEHLO MG, BAHLAS SM: Perceived illness stigma is associated with depression in female patients with systemic lupus erythematosus. *J Psychosom Res* 2013; 74: 248-51.