КЛИНИКО-ИММУНОЛОГИЧЕСКИЕ АСПЕКТЫ ХРОНИЧЕСКОЙ ГОЛОВНОЙ БОЛИ У ПАЦИЕНТОВ С СИСТЕМНОЙ КРАСНОЙ ВОЛЧАНКОЙ

Н.В. Александрова, А.В. Александров, И.Ю. Алексина, О.В. Парамонова

1 Институт клинической и экспериментальной ревматологии имени А.Б. Зборовского, Волгоград, Россия;
2 Волгоградский государственный медицинский университет, Волгоград, Россия;
3 Ставропольский государственный медицинский университет, Ставрополь, Россия

Цель — изучить клинико-иммунологические особенности проявления хронического болевого синдрома у больных системной красной волчанкой (СКВ) с неврологической симптоматикой.

Методы. Обследовано 30 здоровых лиц и 38 пациентов с СКВ. Для оценки наличия депрессивных симптомов использовали опросник Бека. В вывороте крови больных СКВ определяли антитела к аденоznидезаминаze (анти-АДА), β2-гликопротеин-I-зависимые антитела к фосфолипидам класса IgG (анти-ФЛ) и антитела к двуспиральной ДНК (анти-dsДНК). Всем пациентам с СКВ была проведена ультразвуковая допплерография брахиоцефальных артерий.

Результаты. Жалобы на наличие головных болей различной степени выраженностся предъявил 35 человек (92.1%). Мигрень была зарегистрирована у 63.2% пациентов с СКВ. Допплер ультразвук в артериях вертебро-базилярного бассейна, которые могут быть причиной хронической ишемии мозга. У 36.8% больных СКВ были выявлены антитела к двуспиральной ДНК (анти-dsДНК) и Антитела к фосфолипиам класса IgG (анти-ФЛ).

Заключение. Увеличение уровня анти-ФЛ и анти-dsДНК у пациентов с СКВ может свидетельствовать о наличии хронической ишемии мозга. У 44.7% больных СКВ были выявлены антитела к двуспиральной ДНК (анти-dsДНК) и Антитела к фосфолипиам класса IgG (анти-ФЛ).

Ключевые слова: системный лупус еритематозный; хроническая боль.

https://doi.org/10.17816/MAJ191S154-56
Introduction. The development and improvement of non-invasive diagnostic methods can contribute to the early detection of neurological disorders in systemic lupus erythematosus (SLE).

Objective: to study the clinical and immunological features of the manifestation of chronic pain in SLE patients with neurological symptoms.

Materials and methods. We examined 30 healthy individuals and 38 patients with SLE who met the inclusion criteria (a reliable diagnosis of SLE, female, no older than 55 years old, no history of brain injuries and diseases of the central nervous system). SLE activity was monitored using the SELENA-SLEDAI index, a general assessment of the patient’s condition by a doctor using a 100 mm visual analogue scale (VAS). Beck’s depression questionnaire was used to assess the presence of depressive symptoms. Evaluation of the results was carried out in points. When conducting immunological tests, the object of research was blood serum. IgG antibodies to adenosine deaminase (anti-ADA) were determined in an indirect ELISA test developed by us using the immobilized form of ADA (the antibodies to adenosine deaminase (anti-ADA) were determined using the “Anti-ADA on the β2-glycoprotein-I”, leading to increased synthesis of anti-FL and undesirable activation of coagulation cascade in vessels. Since a certain part of ADA in the form of a complex with glycoproteins is concentrated in the plasma membranes of vascular and platelet endothelium cells, it can be assumed that there is a conformational effect of anti-ADA on the β2-glycoprotein-I, leading to increased synthesis of anti-FL and undesirable activation of coagulation cascade in vessels.

Results and discussion. The average value of the SELENA-SLEDAI index at the time of the initial inspection was 12.8 ± 4.4 points). Complaints about the presence of headaches of varying severity presented 35 people (92.1%). The following features of headaches were revealed in patients with SLE: occurrence in the morning hours (34.2%), paroxysmal character (26.3%), combination with vertigo (15.8%) and sleep disorders (47.4%). There was no relationship between the presence of cephalgia and disease activity (p = 0.16). Severe persistent chronic headache, including migraine, observed at the time of the initial examination or within 10 days preceding the examination, was recorded in 24 (63.2%) patients with SLE. Migraine is a characteristic nosological form in the structure of neurological lesions in SLE, often proving to be the earliest manifestation of the disease. Doppler ultrasound in patients with SLE with chronic headaches in 66.7% of cases showed signs of reduced blood flow in the arteries of the vertebrobasilar basin, which may indicate chronic brain ischemia [2]. Signs of depressive disorder of varying severity were found in 36.8% of patients with SLE, and in patients with neurological disorders, moderate (p = 0.027) and severe (p = 0.041) depression were more often detected. Elevated levels of anti-ADA were found in 36.8%, and anti-FL in 44.7% of patients with SLE. There was no significant correlation between the presence of headaches and the level of anti-dsDNA (p > 0.02), although there was a moderate positive correlation of anti-dsDNA with the duration of the disease (r = 0.41, p = 0.028). It was noted that “migraine-like” manifestations of chronic pain syndrome were more common in the group of patients with SLE, who had a combined increase in anti-ADA and anti-FL, compared with patients who had an isolated increase in serum anti-FL (χ² = 4.5; p = 0.024). Joint detection of anti-ADA and anti-FL in patients with SLE was also associated with manifestations of the cytopenic syndrome (p = 0.019). Since a certain part of ADA in the form of a complex with glycoproteins is concentrated in the plasma membranes of vascular and platelet endothelium cells, it can be assumed that there is a conformational effect of anti-ADA on the β2-glycoprotein-I, leading to increased synthesis of anti-FL and undesirable activation of coagulation cascade in vessels.

Conclusion. Diagnosis of neurological disorders in SLE is often difficult, and clinical signs such as persistent headache and various sleep disorders are regarded by clinicians as functional. The combination of severe chronic headache with high levels of anti-ADA and anti-FL can precede the development of stroke and transient ischemic attacks, which emphasizes the need for additional immunological examination of patients with SLE with neurological symptoms.

References
