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DIFFICULTIES IN DIAGNOSING SYSTEMIC LUPUS ERYTHEMATOSUS IN PATIENTS OF CHILDBEARING AGE: FOCUS ON REPRODUCTIVE RISKS

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Abstract:

Systemic lupus erythematosus (SLE)-it is a multisystem autoimmune disease that mainly affects women of childbearing age. Diagnosis of SLE remains a difficult task due to the heterogeneity of the clinical picture, the absence of pathognomonic symptoms, and delayed onset of the disease during pregnancy. This article examines modern diagnostic criteria (EULAR/ACR 2019), analyzes the main diagnostic pitfalls in young women, as well as the impact of undiagnosed SLE on fertility and gestational outcomes. Special attention is paid to the differential diagnosis of preeclampsia and antiphospholipid syndrome.

Keywords: systemic lupus erythematosus, diagnosis, childbearing age, pregnancy, EULAR/ACR criteria, antiphospholipid syndrome.

INTRODUCTION

Systemic lupus erythematosus (SLE) is a classic prototype of a multisystem autoimmune disorder characterized by a wide range of organ damage and a variety of laboratory disorders [6]. The disease disproportionately affects women: the ratio of female to male cases is 9:1, with the peak incidence occurring at reproductive age. This creates a unique clinical situation where the autoimmune process is superimposed on physiological changes related to the menstrual cycle, contraception, and pregnancy.

The etiology of SLE has not been definitively established. The key factors are considered to be:

1)Genetic predisposition-SNP markers have been found in the genes IL-10,TLR5,FCGRs,CTLA-4,STAT4,TNFa,IRF5, associated with the development of SLE.Carriers of these gene variants have an increased risk of disease.

2)Hormonal factors-estrogens stimulate an autoimmune response, which explains the 9:1 prevalence of women.

3) Environmental triggers - ultraviolet radiation (in 40-60% of patients), viral infections (EBV), medications, stress.

Pathogenetically, SLE is characterized by loss of immune tolerance, hyperproduction of type 1 interferon, activation of B lymphocytes, and the production of autoantibodies to double stranded DNA, Sm antigen, and nucleosomes. The formation of immune complexes and their deposits in tissues (kidneys, skin, serous membranes) causes immune-inflammatory damage.

Despite significant progress in treatment, **early diagnosis of SLE remains an unmet need**.

According to literature data, the median delay from the onset of the first symptoms is about 2 years. In patients of childbearing age, this problem is especially acute, since unrecognized lupus can first manifest itself during pregnancy or in the postpartum period, leading to catastrophic consequences for both the mother and the fetus.

Epidemiology and reproductive features

90% of SLE patients are women, and most of them are diagnosed between the ages of 15 and 44. It is important to note that autoimmune disorders themselves are 5 times more common in women, and their peak manifestation occurs precisely during the reproductive period.

Regarding fertility: there is no convincing evidence that SLE directly reduces fertility. However, **subfertility** can occur as a secondary phenomenon due to:

1. The active phase of the disease (chronic inflammation suppresses ovulation).
2. The use of immunosuppressive drugs (especially cyclophosphamide, which has toxic effects on the ovaries). 3. Deliberate postponement of childbearing due to the severity of the condition.

Diagnostic difficulties: The "mask" of lupus, the diagnosis of SLE remains predominantly **clinical**, but clinical heterogeneity is the main problem

Diagnostic criteria of EULAR/ACR 2019

According to the 2019 recommendations, the diagnosis of SLE requires the **mandatory presence of ANA in a titer ≥1:80** (the entrance criterion). With negative ANA, diagnosis is unlikely.

After confirming the ANA, the scores are summarized by clinical and immunological domains.

The diagnosis is made with a score of **≥10 points**.

Domain	Criteria	Scores

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Clinical	Fever (>38.3*C)	2
	Hematological: leukopenia, thrombocytopenia, hemolytic anemia	4
	Neurological: delirium, psychosis, seizures	6
	Cutaneous: non-scarring alopecia, ulcers of mucous membranes	2
	Discoid foci	4
	Acute cutaneous lupus ("butterfly")	6
	Articular: non-erosive arthritis ≥2 joints	6
	Serositis: pleurisy, pericarditis	5
	Renal: biopsy (III-V class) or proteinuria >0.5 g/day	8
Immunological	Antiphospholipid antibodies	2
	Low C3 or C4	3
	Anti-dsDNA or Anti-Sm	6

Clinical polymorphism of SLE

SLE can affect any organs and systems. The most frequent manifestations:

Constitutional symptoms (80-90%): fever, weakness, weight loss.

Skin manifestations (70-80%): -A "butterfly" on the cheekbones (a paint rash) is a classic, but not mandatory sign (only 30-40% at the onset)

- Discoid foci – scarring plaques - Photosensitization - Ulcers of mucous membranes (nose, mouth)

Articular manifestations (80-90%): arthralgia, non-erosive arthritis of the small joints of the hands, wrist, knee.**Kidney damage (40-75%):** lupus nephritis is one of the main causes of death. It is manifested by proteinuria, hematuria, arterial hypertension.

Hematological disorders (50-70%): hemolytic anemia, leukopenia (<4000/ml), lymphopenia (<1500/ml), thrombocytopenia (<100000/ml).

Immunological disorders:

- Antinuclear antibodies (ANA) – sensitivity 95-98%, but low specificity - Anti-dsDNA – specificity 95-98%, correlates with the activity of nephritis - Anti Sm – pathognomonic for SLE (specificity 99%) - Low complement (C3, C4) – activity marker

Differential diagnosis: Lupus vs Preeclampsia

This is the most private and dangerous dilemma in obstetrics. Both active lupus and severe preeclampsia are manifested by proteinuria, hypertension, and thrombocytopenia.

In a study by Abramson et al. (1992), it was shown that the study of the complement system helps to differentiate these conditions.:

With **active lupus**, there is a decrease in C3, C4 and CH5O against the background of an increase in complement cleavage products (C3a, C4d).

In **preeclampsia** in non-lupus patients, CH5O remains normal, but alternative and classical pathways are activated (increases in Ba, sC5b-9).

High CH5O/Ba ratios with fragment growth indicate a lupus outbreak.

Safety of antirheumatic drugs during pregnancy

The current recommendations of the EULAR 2024 fundamentally change the approach to the treatment of pregnant women with SLE.

The basic principle is that an untreated active disease harms the fetus more than a well-chosen therapy.

Medications compatible with pregnancy:

- **Hydroxychloroquine (Plaquenil)** is mandatory for all patients with SLE throughout pregnancy. Reduces the risk of exacerbations and neonatal lupus .
- **Azathioprine** is compatible, teratogenic risk has not been proven.
- **Cyclosporine, tacrolimus** – for example, for refractory nephritis .

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- **TNF inhibitors (adalimumab, etanercept)** – can be used at all stages of pregnancy. **Medications that must be discontinued BEFORE conception (teratogens):**
- **Mycophenolate mofetil** — high risk of malformations (cleft lip/palate, microtia).
- **Methotrexate** is embryotoxic, withdrawal 3 months before conception.
- **Cyclophosphamide** — only in the II-III trimester for vital indications .

Glucocorticoids: Prednisone < 5 mg / day is considered safe. Higher doses are associated with premature birth.

Neonatal lupus and congenital heart block

Neonatal lupus: a risk to the fetus

Antibodies to Ro/SSA and La/SSB (present in 30-50% of patients with SLE) pass through the placenta and can cause fetal:

1. Congenital heart block (1-2% with positive antibodies). This is an irreversible condition that requires constant electrocardiostimulation. The risk of recurrence in subsequent pregnancies increases to 10-20%.

2. Cutaneous neonatal lupus — ring-shaped erythematous lesions on the face and scalp that disappear by 6-8 months.

3. Hepatobiliary disorders (rare).

Screening recommendations: All patients with SLE should have anti-Ro/SSA and anti-La/SSB determined when planning pregnancy or in the early stages. With positive antibodies, **weekly ECHO monitoring of the fetal heart is indicated** from the 16th to the 28th week of pregnancy.

DISCUSSION

1. Absence of a "molar rash": Only 30-40% of patients at the onset have a classic rash on the cheekbones.

2. Seronegative variant: Although the EULAR/ACR criteria require an ANA for classification, in very rare cases (less than 2%) anas may be negative in the early stages, requiring retesting.

3. "Too young age": Pathology doctors have a 20-year-old girl with joint pain, put it down to "stress" or "rheumatism".

"Guidelines for management":

Algorithm of management of a patient with SLE of childbearing age

Stage 1. Pre-pregnancy preparation (6-12 months before conception):

1. Achieving clinical remission (SLEDAI=0) or low activity (SLEDAI≤4) for at least 6 months.
2. Withdrawal of teratogenic drugs: mycophenolate mofetil, methotrexate, cyclophosphamide (replacement with azathioprine or TNF inhibitors, if necessary).
3. Determination of antibodies: ANA, anti-dsDNA, anti-Ro/SSA, anti-La/SSB, antiphospholipid antibodies.
4. Assessment of kidney function (GFR, proteinuria).

Stage 2. Pregnancy management:

1. Continuation of hydroxychloroquine is mandatory.
2. Blood pressure and urine monitoring (proteinuria) every 4 weeks.
3. Complement control (C3, C4) and anti-dsDNA every 8-12 weeks — a decrease portends an exacerbation.
4. With positive anti-Ro/SSA — fetal heart ECHO from 16 to 28 weeks weekly.

Stage 3. Postpartum period:

1. High risk of exacerbation in the first 3 months.
2. Glucocorticoids in the minimum effective dose.3. Breastfeeding is possible against the background of hydroxychloroquine, azathioprine, TNF inhibitors.

CONCLUSION

1. Systemic lupus erythematosus is a multisystem autoimmune disease with a peak incidence in the reproductive age. Diagnosis remains difficult due to the heterogeneity of manifestations and the absence of pathognomonic symptoms.
2. The EULAR/ACR 2019 criteria with mandatory ANA screening increase diagnostic accuracy, but require clinical thinking. With negative ANA, the diagnosis of SLE is unlikely.
3. In pregnant women, the key differential diagnosis is between lupus nephritis and preeclampsia. The study of complement (decreased C3/C4) and anti-dsDNA helps to distinguish between these conditions.
4. Antibodies to Ro/SSA and La/SSB require fetal heart monitoring due to the risk of congenital heart block (1-2%). With the next pregnancy, the risk increases to 10-20%.
5. The current recommendations of the EULAR 2024 allow the majority of patients with SLE to safely carry out pregnancy on the background of properly selected therapy (hydroxychloroquine, azathioprine, TNF inhibitors). An active, untreated disease is more dangerous to the fetus than medications.
6. Timely pre—pregnancy treatment (remission ≥6 months, withdrawal of teratogens) is the best way to prevent maternal and perinatal morbidity.

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LIST OF LITERATURE

1. Nusbaum JS, et al. Sex Differences in Systemic Lupus Erythematosus: Epidemiology, Clinical Considerations, and Disease Pathogenesis. Mayo Clin Proc. 2020;95(2):384-394. DOI: 10.1016/j.mayocp.2019.09.012
2. Aringer M, et al. SLE criteria are by necessity still based on clinical (and immunological) criteria items. Expert Rev Clin Immunol. 2024;20(3):305-311. DOI: 10.1080/1744666X.2023.2292188 3. Clowse MEB, et al.
3. Implications of the accuracy of diagnostic algorithms for systemic lupus on our understanding of racial disparities in pregnancy outcomes. Rheumatology (Oxford). 2024;63(1):119-126. DOI: 10.1093/rheumatology/kead178
4. Friel LA. Аутоиммунные нарушения при беременности. MSD Manuals (Профессиональная версия). Сентябрь 2023. 5. Kapsala N, et al. The Multiple Faces of Systemic Lupus Erythematosus: Pearls and Pitfalls for Diagnosis. Mediterr J Rheumatol. 2024;35(Suppl 2):319-327. DOI: 10.31138/mjr.130124.ppa
5. Abramson SB, et al. Activation of the complement pathway: comparison of normal pregnancy, preeclampsia, and systemic lupus erythematosus during pregnancy. Am J Reprod Immunol. 1992;28(3-4):183-187. DOI: 10.1111/j.1600-0897.1992.tb00787.x
6. Gutkowski K, et al. [Systemic lupus erythematosus (SLE)]. Ginekol Pol. 2006;77(11):893-900. PMID: 17378131
7. Aringer M, et al. Classification of systemic lupus erythematosus: From the development of classification criteria to a new taxonomy? Best Pract Res Clin Rheumatol. 2023;37(4):101949. DOI: 10.1016/j.berh.2024.101949
8. Рекомендации EULAR по применению противоревматических препаратов при беременности, лактации и в репродукции: обновление 2024. Ann Rheum Dis. 2025;84(6):910-926. DOI: 10.1016/j.ard.2025.02.023
9. Попкова Т.В., Панафидина Т.А., Лила А.М. Системная красная волчанка: диагностика, лечение, мониторинг. Методические рекомендации (проект). Медвестник. 2025.
10. Vinet E., Izmirly P. Approaches to the Management of SLE During Pregnancy. The Rheumatologist. ACR Convergence 2025.
11. Иваницкий Л.В. Прогностическое значение полиморфизма генов цитокинов для формирования патологии внутренних органов у больных СКВ. Диссертация. МОНИКИ, 2018.