Systemic Lupus Erythematosus and Pregnancy

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KEYWORDS

• Systemic lupus erythematosus • Antibodies • Pregnancy • Fetal loss
• Preeclampsia • Neonatal lupus syndromes

KEY POINTS

- Outcomes for pregnancy in the setting of systemic lupus erythematosus have considerably improved but the maternal and fetal risks still remain high.
- Disease flares, preeclampsia, pregnancy loss, preterm births, intrauterine growth restriction, and neonatal lupus syndromes (especially heart block) remain the main complications.
- Specific monitoring and treatment protocols need to be used for situations such as presence of specific antibodies (antiphospholipid antibodies and anti-Ro/La).
- Safe and effective treatment options exist and should be used as appropriate to control disease activity during pregnancy.
- Close monitoring, tailored multidisciplinary care, and judicious use of medications are the key to achieve optimal outcomes.

INTRODUCTION

Systemic lupus erythematosus (SLE) is a multisystem autoimmune disease with a strong female predilection. Disease onset in a younger age group, coupled with improved survival, makes pregnancy a likely occurrence in the setting of SLE. Although outcomes have improved over time and successful live births can now be achieved in most cases, pregnancy still remains a high-risk situation in SLE.[1–3] Both maternal and fetal mortality and morbidity are significantly increased, along with health care utilization and costs.[2–5] A multidisciplinary coordinated approach with

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involvement of appropriate specialists and close monitoring is essential for optimal outcomes. This article discusses major issues and the management principles to guide clinicians caring for pregnant women with SLE.

EFFECTS OF PREGNANCY ON SYSTEMIC LUPUS ERYTHEMATOSUS DISEASE ACTIVITY

Although opinions differ, most studies have shown that risk of SLE flare is higher during pregnancy. Variable flare rates of between 25% to 65% have been reported, likely attributable to different study designs, patient populations, and assessment tools being used.[6–8] Multiple predictors for flares have been identified, including disease activity at the time of conception, lupus nephritis, and discontinuation of medications such as hydroxychloroquine (HCQ).[9,10] Most of these flares are mild to moderate in severity and involve renal, musculoskeletal, and hematological systems.[11] Recognition and management of the flares during pregnancy can be challenging because features may be altered and therapeutic options limited.

Recognition of Disease Activity During Pregnancy

Recognition of disease activity and flare in pregnancy can be difficult because physiologic changes of pregnancy may overlap with features of active disease (**Table 1**). Investigations have to be interpreted with caution: mild degrees of anemia, thrombocytopenia, proteinuria, and increased erythrocyte sedimentation rate are common during pregnancy. Complement levels become less informative with the increase in levels during normal pregnancy. The trend becomes more important, and decline in levels of complement during pregnancy has been associated with poor pregnancy outcomes.[12,13] The use of SLE disease activity indices faces similar issues, because physiologic pregnancy changes were not accounted for in these tools. Pregnancy-specific disease activity scales have been developed but utility remains limited. The clinical judgment of an experienced physician may the best tool to evaluate disease activity in some scenarios.

Management of Disease Activity Pregnancy

Treatment of disease activity and flares during pregnancy requires the use of medications that are effective but safe for the growing fetus. However, patients and sometimes even physicians discontinue medications because of concerns over

Table 1
Overlapping features of pregnancy and systemic lupus erythematosus

	Pregnancy Changes	SLE Activity
Clinical Features	Facial flush	Photosensitive rash
	Palmar erythema	Oral or nasal ulcers
	Arthralgias	Inflammatory arthritis
	Fatigue	Fatigue, lethargy
	Mild edema	Moderate to severe edema
	Mild resting dyspnea	Pleuritis
Laboratory Features	Mild anemia	Immune hemolytic anemia
	Mild thrombocytopenia	Thrombocytopenia
		Leukopenia, lymphopenia
	Mildly increased ESR	Increased inflammatory marker levels
	Physiologic proteinuria <300 mg/d	Proteinuria >300 mg/d
		Active urinary sediment

Abbreviation: ESR, erythrocyte sedimentation rate.