

## Management and obstetric outcomes in pregnancies complicated by systemic lupus erythematosus nephritis

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**Objective.** Pregnancy complicated by systemic lupus erythematosus (SLE) is associated with a 2-4 fourfold increased rate of obstetric complications, including foetal growth restriction (FGR) and preeclampsia.

Lupus nephritis (LN) and active disease at conception stand as main risk factors for adverse obstetric outcome. The aim of the study is to compare pregnancy outcomes in patients with and without LN.

**Materials and Methods.** Cohort study on 157 SLE pregnancies referred to a Tertiary Centre, from 2007 to 2022.

**Results.** A cohort of 157 pregnancies was divided into two groups according to renal involvement: 40 with pre-existing LN and 117 without LN.

The LN group more frequently carried antiphospholipid (55% vs 36.8%,  $p = 0.04$ ) and anti-DNA antibodies (60% vs 23%,  $p < 0.001$ ), creatinine  $> 1.2$  mg/dl (12.8% vs 2.9%,  $p =$

0.03), pre-existing hypertension (35.9% vs 8.6%  $p < 0.001$ ) and proteinuria (52.5% vs 4.3%,  $p < 0.001$ ).

97.4% of LN group received a prophylactic treatment (56.4% with a combination of low-dose aspirin and low molecular weight heparin). In LN group the incidence of preeclampsia (17.9% vs 3.8%,  $p = 0.01$ ) and preeclampsia associated to FGR (10.2% vs 1.04%,  $p = 0.02$ ) was significantly higher than in the control group. Placental preeclampsia was also more frequent in NL patients with pre-existing hypertension than in non-hypertensive (21.4% vs 4.0%,  $p = 0.2$ ).

**Conclusions.** Preeclampsia associated with FGR is the main obstetric complication in SLE-NL patients. Anyway, a planned pregnancy managed with a multidisciplinary approach with a broad prophylactic treatment may potentially prevent most adverse obstetric outcomes.