Introduction and Aims: The aims of this multicenter prospective study in pregnant patients with lupus nephritis (LN) were the evaluation of: a) the risks of maternal and fetal complications b) the predictors of these complications.

Methods: From 2004 to 2012 pregnant patients with LN followed in some nephrological and rheumatological Italian Unit were included in this study. Results: Sixty-two pregnancies in 53 women (mean age 33±4.54 at pregnancy) with LN were included. LN was in remission at pregnancy in 49 patients (79%), and active in 13 patients (21%, serum creatinine 0.7±0.2mg/dl and proteinuria 1±0.7g/die), low complement was present in 39%, and arterial hypertension in 11.3%, antiphospholipid antibodies positivity in 38.9%. The mean BMI was 22±4.1Kg/m2.

Maternal outcome:

Six preeclampsia (9.7%) and 14 renal flares (22.6%) occurred (9 in patients with inactive and 5 in active lupus nephritis,13 were proteinuric flares and 1 nephritic flare. Altogether a maternal complications occurred in 21 pregnancies (34.4%).

Fetal outcome: 58 pregnancies ended in 60 live births (93.5%);19 were delivered preterm, 14 live births (23%) were small for gestation age, 4 pregnancies ended in miscarriages.

Predictors: The occurrence of maternal complications were significantly correlated with the presence of arterial hypertension (30%vs2.4% p=0.011) and with the BMI (24.7±5.3 vs 21.8±3). The presence of arterial hypertension was predictive of preeclampsia ( 50% vs 7%; P= 0.008) and of preterm delivery (28.5% vs 2.5% P= 0.015).

Conclusions: Our rate of renal flares (around 20%), is lower than the 30% reported in recent studies. Our fetal loss of 6% is one of the lowest reported. Altogether our results suggest an improvement in the fetal and maternal outcomes of pregnancies in patients with LN. Nowadays that the immunosuppressive therapy achieves the remission of LN in the majority of patients, and that the majority of pregnancies are planned in phases of quiescence of the disease, the factors that seem to be able to influence the mother and fetal outcome are the comorbidities (such as arterial hypertension, obesity) due to long lasting disease and or long lasting steroids and immunosuppressive therapy.