P74 COMPLEMENT VARIATIONS IN SYSTEMIC LUPUS ERYTHEMATOSUS PREGNANCIES

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Background/Purpose To analyse complement variations during SLE pregnancies, considering pregnancies with Adverse Pregnancy Outcome (APO) and with flares.

Methods Monocentric, retrospective study of 98 SLE patients with 134 pregnancies (including 3 twin pregnancies) prospectively followed by multidisciplinary team (1987–2015). Hypocomplementemia was defined according to the normality range calculated in healthy pregnancies by Reggia *et al.*¹

Results APO occurred in 22 (16%) and flares in 11 (8%) pregnancies. The variation of mean C3 and C4 levels are shown in table 1. Notably, both in pregnancies with flares and with APO, there was no increase of C3 between the 2nd and the 3rd trimester and of C4 between the 1st and the 3rd trimester. In pregnancies with flares the mean levels of C3 and C4 were lower than in pregnancies without flares during the 2nd and the 3rd trimester; the mean levels of C4 were also lower in the flare group during pre-conceptional visit. In pregnancies with APO, the variation of C4 levels between the 2nd and the 3rd trimester was lower than in pregnancies without APO (-3.18 vs 0.27; p=0.01). The frequency of low C4 was higher in pregnancies with flare at pre-conceptional visit, 1st trimester and 3rd trimester (6/7 vs 25/103 p=0.002; 8/9 vs 56/106 p=0.04; 9/11 vs 33/96 p=0.003), as compared with pregnancies without flares.

Conclusions In our cohort, low C4 at pre-conceptional visit seems to predict flares during pregnancies. Lower increase of C4 levels between the 2nd and the 3rd trimester could predict an APO.

REFERENCE

1. Reggia R., Ziglioli T., Andreoli L., *et al.* Primary anti-phospholipid syndrome: any role for serum complement levels in predicting pregnancy complications?. *Rheumatology* 2012;**51**:2186–2190

P75 ANTI-SSA/RO POSITIVITY AND THE RISK OF CONGENITAL HEART BLOCK: OBSTETRIC AND FETAL OUTCOME IN A COHORT OF ANTI-SSA/RO POSITIVE PREGNANT PATIENTS WITH AND WITHOUT AUTOIMMUNE DISEASES

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Background Neonatal lupus syndrome is an acquired disease caused by the transplacental passage of anti-SSA/Ro antibodies. Congenital heart block (CHB) represent the most serious manifestation. The rate of CHB in anti-SSA/Ro positive pregnant woman varies among studies ranging from 1 to 5% in different populations. Aim of our study was to assess the prevalence of CHB in a cohort of anti-SSA/Ro positive pregnant women prospectively followed up in 2 Italian tertiary referral centers.

Methods Patients underwent monthly clinical examination and data regarding the disease and pregnancy course were recorded. Moreover, fetal heart rates were assessed weekly by Doppler ultrasound from the 14th to the 26th gestational week.

Results Between 2010 and 2018 we recorded data of 286 pregnancies, with the following maternal diagnosis: SLE in 73 (25.3%), Sjogren Syndrome in 52 (18%), undifferentiated connective tissue disease in 59 (20.6%), asymptomatic Ro/SSA carriers in 50 (17.4%) and other connective tissue disease in

Abstract P74 Table 1 C3 and C4 mean levels (mg/dL) at pre-conceptional visit (T0), 1st trimester (T1), 2nd trimester (T2) and 3rd trimester (T3). Flare during pregnancies were: 2 renal, 4 articular, 6 cutaneous and 1 neurological. APO were defined as: early miscarriage (<10th week), intrauterine fetal death (>10th week), perinatal death (<30th day of life), pre-eclampsia (PE), severe preterm birth (<34th week)

	C3 T0	C3 T1	C3 T2	C3 T3	p T0-T1	p T1-T2	p T2-T3
Pregnancies (tot)	84.5	91.0	102.4	112.4	<0.001	<0.001	<0.001
Pregnancies with flares*	73.2	82.2	83.8	97.5	0.04	0.02	ns
Pregnancies without flares*	85.3	91.8	104.4	114.7	<0.001	<0.001	<0.001
Pregnancies with APO [§]	84.7	91.5	98.5	106.3	0.03	0.03	ns
Pregnancies without APO [§]	84.5	90.9	102.8	112.8	<0.001	<0.001	<0.001
	C4 T0	C4 T1	C4 T2	C4 T3	p T0-T1	p T1-T2	p T2-T3
Pregnancies (tot)	12.9	14.5	15.8	16.0	<0.001	<0.001	ns
Pregnancies with flares**	8.6	11.8	10.9	11.4	0.01	ns	ns
Pregnancies without flares**	13.2	14.7	16.3	16.6	<0.001	<0.001	ns
Pregnancies with APO ^{§§}	13.1	16.1	15.9	14.7	0.01	ns	ns
Pregnancies without APO ^{§§}	12.9	14.2	15.8	16.1	<0.001	<0.001	ns

Comparison of C3 and C4 mean levels between pregnancies with flares vs without flares:

*T0, T1: p ns. T2, T3: p 0.01 ** T0: p 0.02. T1: p ns. T2, T3: p 0.01

Comparison of C3 and C4 mean levels between pregnancies with APO vs without APO:

§ T0, T1, T2, T3: ns. §§ T0, T1, T2, T3: ns.