any difference between the two groups (n=141, WMD: -0.01, 95% CI: -0.03, 0.01, I^2=0%, p=0.26). The data on percent increase in flow-mediated dilation was conflicting. In terms of inflammatory markers, there were likewise no clear associations, with some studies reporting significant changes in ESR, CRP, IL-12, and IL-13 levels which were not observed in others. With regards to lipid profile, treatment with omega-3 fatty acids was associated with a non-significant trend toward increase in all lipid profile parameters at 12 weeks including HDL (WMD 6.83, 95% CI: -4.37, 18.02, I^2=12, p=0.23), LDL (WMD 5.41, 95% CI: -1.27, 12.10, I^2=0%, p=0.11), and total cholesterol (WMD 8.48, 95% CI: -0.38, 17.33, I^2=0, p=0.06).

Conclusions: The limited data on the use of omega-3 fatty acids has not shown clear benefit in improving disease activity, endothelial function, inflammatory markers, or lipid profile in patients with SLE. Larger studies for longer durations using standardized scales for measuring outcomes are needed.

References:

[1] Wan X, Wang W, Liu J, Tong T. Estimating the sample mean and standard deviation from the sample size, median, range and/or interquartile range. BMC Med Res Methodol. 2014;14:135–148.

Acknowledgements: Dr. Chia-Ling Kuo.

Disclosure of Interest: None declared

DOI: 10.1136/annrheumdis-2017-eular.2666

AB0467 EFFICACY AND SAFETY OF ASSISTED REPRODUCTIVE TECHNOLOGIES (ART) IN RHEUMATIC PATIENTS: A MULTICENTER STUDY

R. Reggia[1], H. Sebbar[1], L. Andreoli[1], A. Hoxha[2], M. Larosa[3], F. Ceccarelli[4], V. Canti[5], V. Ramoni[6], A. Inversetti[7], A. Ruffatti[2], A. Doria[3], F. Conti[4], G. Valesini[4], P. Rovere Querini[5], C. Montecucco[6], A. Lojacono[8], L. Fallo[8], A. Tincani[1]. *[1]Rheumatology and Clinical Immunology, ASST Spedali Civili di Brescia, BRESCIA; [2]Rheumatology Unit, Department of Medicine - DIMED; [3]Rheumatology Unit, Hospital and University of Padua, Padua; [4]Internal Medicine and Medical Specialties Department, Policlinico Umberto I, "La Sapienza" University of Rome, Rome; [5]Allergology and Clinical Immunology, U.O. Internal medicine, Ospedale San Raffaele, Milan; [6]Rheumatology Unit, IRCCS Policlinico San Matteo and University of Pavia, Pavia; [7]Department of Obstetrics and Gynaecology, Ospedale San Raffaele, Milan; [8]Maternal-Fetal Medicine, ASST Spedali Civili di Brescia, BRESCIA, Italy*

Background: Always more frequently rheumatic patients (pts) ask for Assisted Reproductive Technologies (ART) for infertility problems. The main concern is determined by the ovarian stimulation, associated with an increased risk of disease flare and thrombosis.

Objectives: To describe a case series of ART cycles in pts affected by rheumatic diseases, analyzing pregnacy rate and outcome, fetal-maternal complications and disease flares.

Methods: We included all the consecutive pts evaluated in the Pregnancy Clinic of 5 Italian Rheumatology Units after having performed ≥1 ART cycle from 1997 to 2016.

Results: We included 60 pts: infertility was primary (no previous spontaneous conception) in 68% of cases, idiopathic in 76.5%, of male origin in 8.3%, of female origin in 15%, mixed in 0.2%. One hundred and eleven ART cycles were performed: 13IUI, 44FIVET (3eterologous), 53ICSI (14eterologous), 1embryodonation. Antiphospholipid antibodies were positive in 23 (38.3%) pts and in 45 (40.5%) cycles. Procedures were unstimulated in 14 (12.6%) stimulated in 97 (59.5%) cases: with GnRH-Antagonist in 26 (26.8%), GnRH-agonist in 60 (61.8%), gonadotropins only in 7 (7.3%) and with clomiphene in 4 (4.1%) cases. We registered 3 (3%) cases of Ovarian Hyperstimulation Syndrome, all after Agonist protocol. Overall we observed 46 pregnancies, with a *pregnancy rate* of 38.7% for omologous procedures and of 55.5% for eterologous. No miscarriages were reported. Pregnancies ended with 35 single and 5 twin birth, 6 are still ongoing: we recorded 4 (8.9%) perinatal deaths: 1 baby died at birth for multiple malformations and 3 died in the first days of life for extreme prematurity. One or more fetal complications were reported in 11 (27.5%) pregnancies: 3PROM, 3IUGR, 3oligohydramnios, 4fetal malformation (2 severe, 1multiple and fatal). The mean age of the women suffering from fetal complications was significantly lower (p:0.03). One or more maternal complications were reported in 13 (32.5%) pregnancies: 4gestational diabetis, 2thrombocytopenia, 2pre-eclampsia, 2placenta previa, 1hypothyroidism, 1gestational hypertension, 1cholestasis of pregnancy. Disease Flares were reported in 5 (12.5%) pregnancies: 4 articular (2 in RA patients, 2 in SLE patients), 1haematological (in SLE patient, after spontaneous therapy discontinuation). No cases of thrombosis were reported.During puerperium: 1 (2.5%) post-partum hemorrage (no LMWH ongoing), 1 articular flare (2.5%). Additional informations are available in Table 1.

Mean age at procedure; [median]; range	36.4; [37]; 19-45	
Diagnosis	22 SLE (2+APS), 12 UCTD, 5 PAPS, 8 RA, 5 AS, 2 SjS, 1 DM, 1PA, 1 Takayasu Arteritis, 1 Churg-Strauss Vasculitis, 1 Behcet Disease, 1SSc.	
Mean disease duration at procedure; [median]; range	6.9 years; [6]; 1-22	
Prophylactic therapy during ovarian stimulation (data available in 109 cycles) Mean n' of embryos transferred in utero; [median]; range	yes in 71 (65.1%)	LDA only n:23 (32.4%)
		LMWH only n:25 (35.2%) Prophylactic dose in 25(100%)
		LDA+LMWH n:23 (32.4%)
	no in 38 (34.9%)	
	1.6; [2];1-4	
Single embyo-transfer vs Multiple embryo-transfer	n:32 (31.2%), *pregnancy rate*: 50% n:48 (68.8%), *pregnancy rate: 39.6%* (p:0.37)	
Prophylactic therapy during pregnancy (administered in 35 pregnancies)	-LDA only n:9 (25.7%); -LMWH prophyilactic only n:4 (11.4%); -LDA+LMWH prophyilactic n:20 (57.1%); -LDA+LMWH therapeutic n:1 (2.9%); -UH therapeutic n:1 (2.9%).	
Deliveries	vaginal n:17 (42.5%), cesarean section n:23 (57.3%); at term n:33 (82.5%), pre-term n:7 (17.5%).	
Mean age at delivery; [median]; range	37 weeks; [38]; 24-41.	
Mean weight and lenght at delivery; [median], range	2780.8g; [3005g]; 420-3900g. 47.6cm; [49]; 28-53.	

Tab.1 Main features of patients, procedures and newborns

SLE: Systemic Lupus Erythematosus; PAPS: Primary Antiphospholipid Syndrome; UCTD: Undifferentiated Connective Tissue Disease; SjS: Sjögren Syndrome; SSc: Systemic Sclerosis; PA: Psoriasic Arthritis; AS: Ankylosing Spondylitis.

Conclusions: We didn't found any good reasons to discourage ART performance in rheumatic pts: the safety seems to be high and the *complications rate* is in line with that reported in general population. An adequate prophylaxis during stimulation, pregnancy and puerperium seems to provide a good protection from thrombotic complications.

Disclosure of Interest: None declared

DOI: 10.1136/annrheumdis-2017-eular.2351

AB0468 POSSIBLE EFFECTS OF BELIMUMAB THERAPY ON T- AND B-CELL PHENOTYPE IN A COHORT OF PATIENTS WITH SYSTEMIC LUPUS ERYTHEMATOSUS

S. Piantoni[1], F. Regola[1], M. Scarsi[2], F. Dall'Ara[1], L. Andreoli[1], A. Tincani[1], P. Airò[1]. *[1]Rheumatology and Clinical Immunology, Spedali Civili and University of Brescia, Brescia; [2]Internal Medicine Unit, Esine-Vallecamonica Hospital, Esine, Italy*

Background: B- and T-cell activation are one of the pathogenic mechanisms of systemic lupus erythematosus (SLE). After repeated antigenic stimulation, T-cells undergo different modifications, leading to the differentiation into effector memory T-cells (CCR7-CD45RA-) and highly experienced memory T-cells (CCR7-CD45RA+). Similarly, down-modulation of CD28 may lead to the expansion of the CD28neg T-cells, a subpopulation with peculiar effector activities (1).

Recent studies showed that memory CD4+ T-cells are increased in the peripheral blood of SLE patients, whereas contradictory data are reported on CD28 neg T-cells (2).

Peripheral transitional B-cells (38high24high) are immature B-cells transiting to secondary lymphoid organs, where their maturation into follicular or marginal zone B-cells is driven by a stimulating factor called BLyS. This population is expanded in patients with SLE (3). The anti-BLyS therapy agent belimumab is approved for treatment of SLE.

Objectives: The aims of this study were to characterize B- and T-cell phenotype in a cohort of patients with SLE, according with disease activity, and to analyse their modifications therapy with belimumab.

Methods: Phenotypic analysis of peripheral blood B and T lymphocytes was made by flow-cytometry. First, a cross-sectional study on 51 consecutive SLE patients (F/M: 48/51; median age: 35 years; anti-dsDNA: 16 UI/ml; C3: 79 mg/dl; C4: 10 mg/dl) was performed.

Second, 18 patients treated with belimumab were longitudinally followed.

Disease activity was evaluated by SLEDAI-2K score.

Results: SLE patients were divided in two groups according disease activity: patients with SLEDAI-2K ≥6 (n:13) had a higher percentage of circulating CD4+T-cells with CD28neg phenotype: median value (25th-75th percentile)=13 (5–19) vs 3 (1–5) % of CD4+ T-cells, p<0.01), as well as of those with an effector memory (37 (29–40) vs 18 (12–27) % of CD4+ T-cells, p<0.01), highly experienced memory phenotype (9 (7–12) vs 1 (1–3) % of CD4+ T-cells, p<0.01), and of B-cells with a transitional phenotype (3 (0.5–5) vs 0.2 (0–0.4) % of CD19+ cells, p=0.02), in comparison with patients with low disease activity (n:38).

After 6 months of treatment with belimumab, no significant variation in the T-cell subset was observed, but there was a reduction in the number of circulating naïve B-cells (from 49 (30–71) to 21 (11–36) % of CD19+ cells; p<0.01). Among these patients, the proportion of transitional B-cells, was raised (as compared with normal controls) at baseline in 3/11 patients with SLEDAI-2K ≥6, and 0/7 with low disease activity. After 6 month of therapy, their number normalized in 2 of these 3 patients.

Conclusions: CD4+ T-cells subpopulations displaying phenotype characteristics of effector lymphocytes, and transitional B-cells are expanded in peripheral blood of patients with active SLE. Therapy with belimumab may inhibit the production of transitional and naïve B-cells.

References:

[1] Strioga M, et al. Immunology 2011.
[2] Ugarte-Gil M, et al. Lupus 2016.
[3] Jacobi AM, et al. Arthritis Rheum 2008.

Disclosure of Interest: None declared

DOI: 10.1136/annrheumdis-2017-eular.5976