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THU0266 RESILIENCE IN WOMEN WITH PRIMARY SJÖGREN'S SYNDROME

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Background: Resilience is the ability to react positively to stressful life events, a multidimensional feature that varies in relation to context, time, age, sex, culture and personal experience, appearing among the most important traits in patients suffering from rheumatic diseases¹. Several studies focus on patients with RA and SLE and the role of resilience in the respective clinical manifestations, as well as in the development of anxiety and depression^{2,3}. Conversely, the data available regarding patients with primary Sjögren's Syndrome (pSS) are limited.

Objectives: To assess, in women with pSS (classified according to the criteria of Vitali et al.⁴), the relationship between resilience and anxiety, depression, health, fatigue, physical activity and quality of life in relation to disease activity and duration and in consideration of demographic, job and cultural characteristics.

Methods: 74 female patients with pSS afferent to the dedicated clinic of the University Hospital Policlinico Umberto I of Rome were recruited. Resilience was assessed by administering the Italian validated version of the Resilience Scale (RS-14)⁵ consisting of 14 items, each of which is assigned a score from 1 to 7, with a range from 14 to 98. Higher scores relate to greater resilience. ESSDAI (EULAR Sjögren's syndrome disease activity index), ESSPRI (EULAR Sjögren's Syndrome Patient Reported Index), SSDDI (Sjögren's Syndrome Disease Damage Index) were assessed and EuroQol / GH EQ VAS (visual analogue scale), HADS (Hospital Anxiety and Depression Scale), SF-12 (Short-form 12 health survey), FAS (Fatigue Assessment Scale), IPAQ (International Physical Activity Questionnaire), FACIT-F (Functional Assessment of Chronic Illness Therapy – Fatigue) questionnaires were submitted. Educational qualifications and job were also considered. The statistical analysis was carried out by means of Spearman's correlation.

Results: No relationship was found between resilience, systemic disease activity, disease duration, patient-reported symptoms and damage. Furthermore, no apparent link was found between socio-demographic characteristics, employment and resilience. Conversely, an inverse relationship was found between resilience and mood disorders ($p=0.0379$), with greater resilience associated with a better perception of quality of life ($p=0.0232$) and general health ($p=0.0002$), mainly mental ($p=0.0001$) than physical ($p=0.0035$), as well as less fatigue ($p=0.0079$) and more physically active lifestyle ($p=0.0012$).

Conclusion: For the first time, the role of resilience in women with pSS in relation to their disease and other individual parameters was assessed. The most resilient patients are less depressed and show better perception of their health. Greater resilience tends to correlate with less anxiety, physical and mental fatigue and a more active lifestyle, while there was no relation between resilience value, active disease and socio-demographic features.

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THU0267 SERUM IGG2 LEVELS PREDICT VERY LONG-TERM PROTECTION FOLLOWING PNEUMOCOCCAL VACCINE IN SYSTEMIC LUPUS ERYTHEMATOSUS (SLE)

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Background: Systemic lupus erythematosus (SLE) patients are at increased risk for *Streptococcus pneumoniae* infection. Although pneumococcal vaccination is an attractive method to prevent invasive pneumococcal infection, vaccination coverage remains dramatically low in SLE. Moreover, the efficacy of vaccination may be reduced in SLE patients and sequential pneumococcal vaccination using new conjugated pneumococcal vaccines in combination with 23-valent pneumococcal polysaccharide vaccine (PPV23) is now advocated. However, limited study directly addressed the immune efficacy of such prime-and-boost strategy in SLE

Objectives: We aimed to measure the immunological efficacy of the sequential pneumococcal vaccination using PCV13 in combination with PPV23 and identify factors associated with long-term immune protection following vaccination in SLE.

Methods: SLE patients received PCV13 vaccine followed by PPSV23 vaccine 8 weeks later. Immune protection, defined by an antigen-specific IgG concentration $\geq 1.3 \mu\text{g/mL}$ for at least 70% of 7 pneumococcal serotypes (4, 6B, 9V, 14, 18C, 19F, 23F), was assessed at baseline, 2 months, 12 months, and 36 months, defining very long-term protection.

Results: 21 (40[25-75] years; 85.7% female) SLE patients received the sequential PCV13/PPV23 vaccines. Only 10 (47.6%) showed a sustained immune protection against pneumococcal infection 36 months after PCV13 shot (very long-term protected, VLTP). Eleven patients had no long-term protection (NLTP) with a seroconversion that never ($n=6$) or only transiently ($n=5$) occurred. SLE disease features, treatment received and immunological characteristic did not differ between VLTP and NLTP patients except for a lower serum IgG2 levels in NLTP (1.45 [1.30, 1.82] vs 3.30 [2.92, 4.44] g/L, $p<0.001$). Noteworthy the ROC curve showed that the serum IgG2 level before vaccination (AUC 0.95 [95% CI: 0.84-1]; $p=0.004$) was predictive for very long-term protection. A baseline serum IgG2 level of $2.125 \mu\text{g/mL}$ or more showed a sensitivity of 100% and a specificity of 90.9% for very long-term protection

Conclusion: The benefit of sequential PCV13/PPV23 vaccination in SLE is limited. Baseline IgG2 serum level before vaccination is strongly indicative of very long term protection following vaccination

Disclosure of Interests: None declared

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THU0268 NEURO-DEVELOPMENTAL OUTCOME IN CHILDREN BORN TO MOTHERS WITH SLE AND APS

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Background: Systemic Lupus erythematosus and antiphospholipid disease are very common autoimmune diseases in women at reproductive age.

Objectives: Evaluate the neuro-developmental outcome in children born to mothers with SLE or APS and to assess and characterize memory impairment in children's born to mother with systemic lupus erythematosus or APS using children's memory scale and the relation between tetrahydrobiopterin concentration range of children with developmental and neurological disorders.

Methods: Women attending rheumatology clinics University of Assut, SLE patients were eligible if they met the American College of Rheumatology (ACR) criteria for SLE and APS prior to pregnancy, and had at least one live birth following SLE diagnosis. Maternal history Data collected using a structured format that included medical and obstetric history. A detailed history of medication exposures and the Systemic Lupus Erythematosus Disease Activity Index (SLEDAI) during pregnancy was obtained. Offspring history Medical and developmental histories of the offspring including antenatal, delivery, prenatal and pediatric histories, as child's cognitive, physical or social maturity compared with established age-appropriate norms. Speech or hearing delays, diagnosis of attention- deficit hyperactivity disorder (ADHD), or any special educational needs (eg, occupational or speech therapy, behavioral counseling) was recorded. Assessment and characterization of memory impairment using children's memory scale by neurologists. Tetrahydrobiopterin was measured by ELISA compared to children born to control healthy subjects of the same age and sex.

Results: Data on 38 mothers and 60 offspring were analysed: ADHD was reported for 15 of 60 (25%) offspring. Recent memory delay was detected in 93% (14/15) Speech delay 40% (6/15). Maternal APS history was significantly associated with increased use special educational need among offsprings, including after adjustment for lupus anticoagulant (LA) positivity (39.4% for delays age >2 years; $p<0.05$). Anticardiolipin and anti-BETA2GP1 were not detected to be associated with delays. Recent memory delay was associated with increased Tetrahydrobiopterin level ($P=0.01$).