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Thursday 06 October 2022 from 10:20 to 11:50

S02 Activity and outcome with patients

S02.1 TREAT TO TARGET IN SYSTEMIC LUPUS ERYTHEMATOSUS FROM THE PATIENTS' PERSPECTIVE – RESULTS FROM AN INTERNATIONAL PATIENT SURVEY

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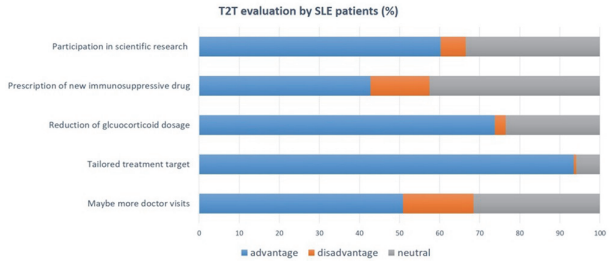
Purpose Treat-to-target (T2T) is considered the emerging concept to significantly improve systemic lupus erythematosus (SLE) care and the patients' outcomes. However and although the success of T2T is largely determined by the involvement of patients, their perspective on T2T has so far not been assessed. It was our aim to investigate patients' attitude towards T2T.

Methods A new-designed questionnaire of 13 questions on T2T, its acceptance, the need and willingness to participate in a T2T trial and possible obstacles for T2T was distributed among members of the patient organizations of the Netherlands (NL), Austria (AU), Germany (GE) and Bulgaria (BG) via newsletter (GE, AU, BG), personal invitation (NL) and a closed Facebook group (BG).

Results A total of 863 patients (n=316 NL, n=271 GE, n=232 BG, n=44 AU), 93.3% female, 52.2% aged 41–60 years with self-declared diagnosis of SLE completed the questionnaire. 48.4% declared being currently in remission, 13% did not know if they were in remission.

Regarding the satisfaction with the current health status, 56.2% were somewhat to all the way satisfied, 29.3% were not at all or hardly satisfied. 65.5% were satisfied with their current therapeutic treatment, while 14.8% where not at all or hardly satisfied with their treatment. Longer disease duration and Dutch origin were associated with higher satisfaction of both health status (disease duration: estimate 0.15, 95%CI 0.09–0.22, p<0.001; Dutch origin: estimate 0.42, 95%CI 0.27–0.61, p<0.001) and therapeutic treatment (disease duration: estimate 0.11, 95%CI 0.05–0.17, p<0.001; Dutch origin: estimate 0.58, 95%CI 0.40–0.75, p<0.001).

As most important treatment goal, normalization of quality of life was chosen most frequently (37.4%) followed by prevention of organ damage (24.6%) and the absence of disease activity (22.6%).



Abstract S02.1 Figure 1 Consequences of T2T rated as advantage or disadvantage by SLE patients. T2T treat-to-target, SLE systemic lupus erythematosus

Regarding shared decision making, the majority reported to be somewhat to all the way involved in treatment decisions (62.1%) while 20,7% where hardly or not at all involved. Dutch patients and patients with longer disease duration reported a stronger involvement in treatment decisions (disease duration: estimate 0.19, 95%CI 0.12–0.26, p<0.001; Dutch origin estimate 0.59, 95%CI 0.39–0.78, p<0.001).

As most difficult decisions in T2T and shared decision making, respondents named the start of new SLE medication (37.9%) and to change medication while feeling good (39.4%). An increase in the dose of glucocorticoids to reach remission was difficult for 22.7%. The perceived advantages and disadvantages of T2T are depicted in figure 1.

Conclusions A substantial number of patients was not satisfied with their health status and therapeutic treatment, whereby Dutch patients and patients with longer disease duration showed higher satisfaction. Reasons and potential biases for this country specific discrepancy remain to be elucidated. Advantages of T2T did overweigh possible disadvantages of T2T with the possibility of more doctors' visits and the prescription of a new drug as biggest disadvantage. Quality of life named as most important treatment goal emphasizes its importance as outcome parameter.

Thursday 06 October 2022 from 15:40 to 17:10

S03 Cardiovascular and thrombotic disease

S03.1 ENDOTHELIAL FUNCTION IN SYSTEMIC LUPUS ERYTHEMATOSUS PATIENTS: IMPACT OF CAFFEINE CONSUMPTION ON ENDOTHELIAL PROGENITOR CELLS SURVIVAL

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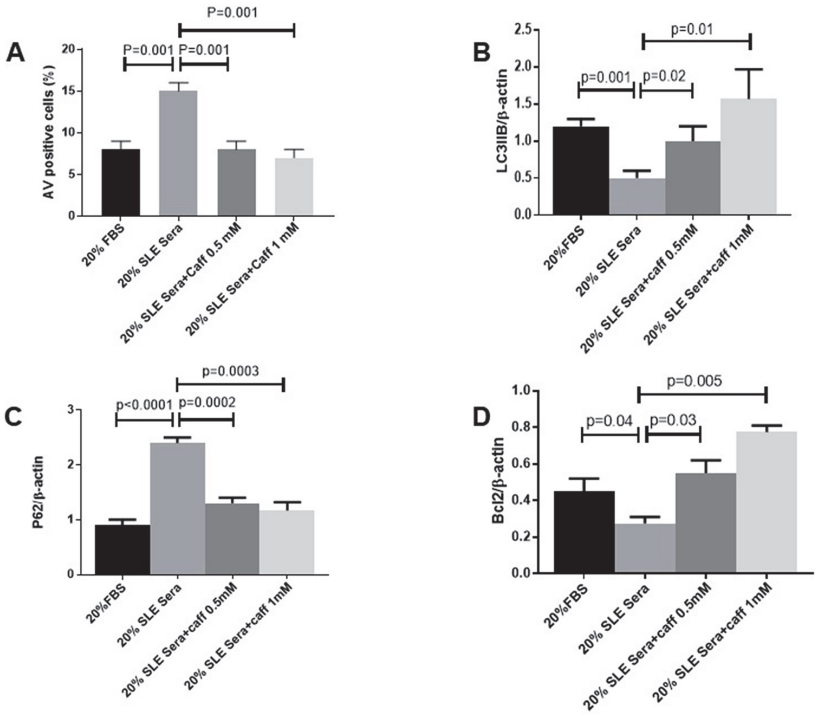
Purpose Circulating endothelial progenitor cells (EPCs) are widely demonstrated biomarkers of endothelial function. Their frequency and function varied in systemic lupus erythematosus (SLE) patients, with a significant association with subclinical atherosclerosis.[1] Caffeine, one of the most widely consumed products in the world, seems to improve endothelial cells number and EPCs migration in coronary artery disease both in mouse models and in patients.[2] The purpose of this study



Abstract S03.1 Figure 1 Percentage of AV (A), LC311 (B), p62 (C), Bcl2 (D) positive cells in HD-EPCs cocultured with caffeine at 0.5 mM and 1 mM with and and without SLE sera

was to evaluate the role of caffeine intake on endothelial function in SLE patients, by assessing its effect on number and function of EPCs both ex vivo in SLE patients and in vitro in healthy donors (HD) treated with SLE sera.

Methods We performed a cross-sectional study enrolling SLE patients excluding patients with history of traditional cardiovascular risks factors. Caffeine intake was evaluated using a 7-day food frequency questionnaire. At the end of questionnaire filling circulating EPCs were detected by using a flow cytometry analysis. Subsequently, EPCs pooled from 6 HD were cocultured with caffeine at 0.5 mM and 1 mM with and without SLE sera. After 7 days, we evaluated the cells morphology and the ability to form colonies. Moreover, we analyzed for the percentage of annexin V-positive (AV) apoptotic cells by flow cytometry analysis and for levels of autophagy and apoptotic markers LC3-II, p62 and Bcl2 by western blot. Finally, EPCs were also treated with SLE sera, alone or in combination with caffeine at 1 mM, in the presence of protease lysosomal inhibitors E64d and Pepstatin A.

Results We enrolled 31 SLE patients (F:M 30:1, median age 43 years, IQR 18; median disease duration 144 months, IQR 180). We found a EPCs median percentage of 0.03% (IQR 0.04) observing a positive correlation between caffeine intake and EPCs percentage ($p=0.03$, $r=0.4$). Moving on in vitro experiments, HD EPCs treated with SLE sera and caffeine showed an improvement in morphology and in number of EPCs-CFU in comparison with those incubated with SLE sera without caffeine ($p=0.0003$). Moreover, the colonies treated with SLE sera were poorly organized in comparison with HD; the addition of caffeine restored the colony structure. After treated HD-EPCs with SLE sera we observed an increase in AV positive cells and p62 values and a reduction of LC3-II and Bcl2 values; the addition of caffeine was able to significantly reduce AV positive cells and p62 values and to significantly increased LC3-II and Bcl2 values (Figure 1A-D), without any significant differences between caffeine 0.5 mM and 1 mM treatment. Finally, in the presence of protease inhibitors, we didn't observe any significant difference in the autophagy and apoptotic markers values, compared to condition without inhibitors.

Conclusions Our data demonstrated the ability of caffeine in increasing the number of circulating EPCs in SLE patients. Moreover in vitro experiments seem to suggest a protective role of caffeine on EPCs survival and vitality through the promotion of autophagy and the inhibition of apoptosis.

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S03.2 PATTERNS OF RECURRENT THROMBOSIS IN PRIMARY ANTIPHOSPHOLIPID SYNDROME –MULTICENTRE, REAL LIFE LONG TERM FOLLOW-UP

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10.1136/lupus-2022-elm2022.7

Background Antiphospholipid Syndrome (APS) is an acquired hypercoagulable condition associated with antiphospholipid antibodies (aPLs) presence. Data on re-thrombosis following APS-diagnosis is limited.