Results. APS patients had higher plasma levels of TSP1 than HCs and SLE patients (APS: mean 390 ng/ml vs HC: 144.3 vs SLE: 153.0 $p<0.0001$). Patient plasma free active TGF-b1 levels were higher and strongly correlated with TSP1 (r=0.827, $p<0.0001$). Among the APS patients those with TSP1 levels >600ng/ml had detectable IL1b and IL17A in their plasma. APS-HUVECs cultured under standard conditions and HC HUVECs cultured with APS plasma expressed higher levels of TSP1 than HC HUVECs cultured with HC plasma (APS=139.4ng/ml vs HC=22.8ng/ml $p=0.0009$). Monocytes stimulated with APS total IgG produced higher levels of IL1b and TSP1 compared to the ones stimulated with HC IgG (700 vs 50pg/ml and 500 vs 200ng/ml respectively). APS stimulated supernatants induced the expression of IL17A from healthy donor T cells (250pg/ml) whereas the HC had no effect. Patients with APS and pregnancy morbidity alone expressed lower TSP1 levels (130.1ng/ml) than APS patients with miscarriages and thrombosis (403.2ng/ml).
Conclusions. APS patients express higher TSP1 plasma levels correlating with free active TGFb1. Monocytes and HUVECs treated with APS-plasma and APS IgG produce higher levels of TSP1 and IL1b and these supernatants induce the expression of IL17A from naïve T-cells. All these suggest a possible involvement of TSP1 in thrombus formation, inflammation and inhibition of angiogenesis that needs further study.

Keywords: thrombospondin-1, antiphospholipid syndrome, plasma.

OC6:3

HYDROXYCHLOROQUINE DOSING: DOES BY IDEAL BODY WEIGHT OR GROSS WEIGHT MAKE A DIFFERENCE?

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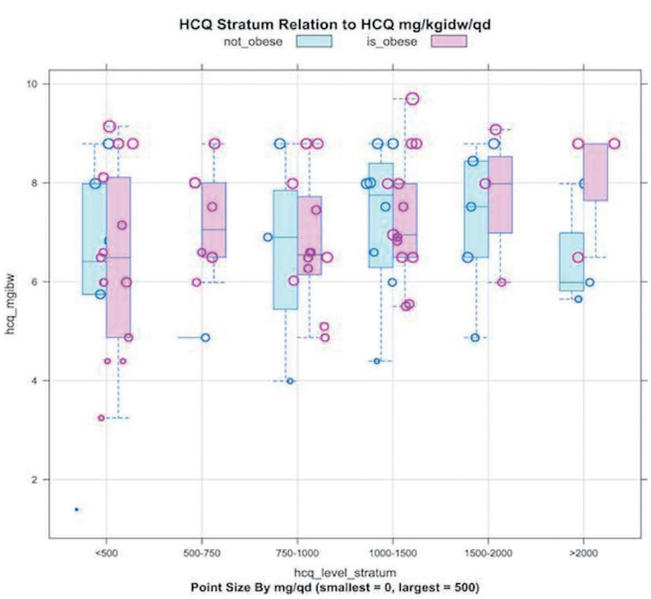
Objective. 1. To find out whether Hydroxychloroquine (HCQ) dosing, by ideal body weight (IBW) vs gross weight (GBW) without addressing obesity issue, makes a difference in achieving the target level.
2. Whether the drug level correlates with therapeutic effect in systemic or cutaneous lupus, lupus or other inflammatory arthritis.
3. Our clinic always uses 6.5 mg / kg IBW. American Academy of Ophthalmology recommends 5mg/GBM regardless of obesity for safety purpose. We set to find out whether IBW formula dosing is still adequate.
Design and Method. 1. Observation over 70 ambulatory patients on HCQ, from February to December 2017, blood HCQ and proximate creatinine level and medical records reviewed to include their gender, age, diagnosis, disease activity measurement by SLEDAI 2K for lupus, CDAI for polyarthritis, or other variables as applicable.
2. Statistical analysis performed using Multi-Ordinal Regression.
Results. See Graph



1. Using BMI 30 criteria we find over 50% patients are obese.
2. IBW dosing not over 400mg/day, with obesity, is significantly more likely to have HCQ levels < 500. ($p<0.01$)
3. IBW and GBW are reasonably equivalent in reaching therapeutic range. Therapeutic effect tends to correlate with higher drug level: best at >1000, still better at 750-1000. Closest significance for the 1500-2000 strata is an odds ratio of 1.90 ($p=0.155$)
4. Obesity is significantly less likely to have levels >2000 ($p<0.01$)
5. High creatinine tends to, but not significantly, associate with high HCQ level
Conclusions. 1. For non-obese patient, with BMI <30, both IBW and GBW work equally well in achieving target level.
2. With IBW dosing, obesity is likely resulted in low drug level but unlikely result in high level.
3. Hydroxychloroquine level over 750-1000 anticipates favorable therapeutic effect.
4. For obese patients, IBW as well as capping at 400mg, limits the ability to compensate the overweight issue; therefore testing the hydroxychloroquine level is advisable.
5. Noncompliance results in low level, but the reverse is not proven here.

Keywords: lupus erythematosus, hydroxychloroquine, drug level.

OC6:4

AVEMAR, A NEW BENZOQUINONE CONTAINING NATURAL PRODUCT IN SLE PATIENTS TREATMENT

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Objective. A Fermented Wheat Germ Extract with standardized benzoquinone content (Avemar) is able to improve clinical and laboratory parameters in mice subject to SLE (1). Authors postulate that results may be related to a rebalancing of the lymphocyte subclasses Th1/Th2 (inhibition of IL4 and IL10 production). FWGE has significant anti-inflammatory efficacy confirmed by plethysmography, histology, and real-time PCR in Wistar rat adjuvant arthritis (AA), a relevant animal model of human RA (2). It has also been shown that FWGE upregulates the expression of intercellular adhesion molecule-1 (ICAM-1) on the endothelial cell. Moreover, FWGE also inhibits cyclooxygenase (COX)-1 and -2 and thus has anti-inflammatory activity. This product contains large amounts of quinolonics and flavonoids. It is therefore likely that the immunomodulatory therapeutic effect can be ascribed to them.
Based on these clinical with a complete lack of toxic side-effects, a double-blind clinical study with Avemar in SLE patients has been performed.
Patients and Methods. In a placebo controlled randomized double-blind we compare the effect of best conventional therapy plus a continuous Avemar administration against best conventional therapy on its own in SLE patients of various clinical stages. Thus the primary endpoint of the study was to test Avemar's efficacy in the treatment of lupus by means of clinical score activity index SLEDAI. The secondary endpoint was to verify the efficacy of Avemar in 1) preventing and/or treating premature atherosclerosis; 2) preventing osteoporosis; 3) rebalancing the lymphocyte subclasses Th1/Th2 (inhibition of the IL4 and IL10 production); and 4) modulating the expression of HLA class I molecules of lymphocytes in reducing oxidative stress. Inclusion criteria: SLE patients under treatment with steroids, antimalarial therapy, cytotoxic drugs. Exclusion criteria: Asymptomatic patients currently under observation without any therapy. Randomisation criteria: a total of 100 patients are to be enrolled and divided, according to a randomization list, into four groups receiving either 9 or 18 g/day of Avemar or placebo for one year.
Preliminary reports: After 6 months the decrease of the SLEDAI score was significant in the Avemar group in comparison of the placebo group.

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Keywords: nutraceutical, antioxidant, SLE.