of RA patients with different patterns of clinical manifestations as well as relationship between RA activity and XO, XDG, and SOD activities. RA patients had increased both mean XO and mean SOD activities (p<0.001 for both enzymes). XO activity reached its highest values at maximum disease activity and over extra-articular involvements, while SOD activity did it in moderate and high disease activities as well as in patients with joint manifestations. XDG activity was increased in low disease activity (p<0.001) and solely joint lesions (p=0.011), while moderate or high disease activities (p=0.008) and extra-articular involvements (p<0.025) were characterized by decreased activity of this enzyme.

Conclusion: We have revealed substantial multidirectional changes of plasma XO and XDG activities in RA. Plasma enzymatic pattern in RA patients is characterized by activation of both oxidant and antioxidant metabolic pathways. Activities of XO and SOD were positively correlated with RA activity, while XDG activity was negatively correlated with RA activity. The differences between selective articular RA type and RA form with extrarticular manifestations were also revealed. Changes in oxidant and antioxidant enzyme activities can be connected with anticitrulline autoimmunity in RA via production of citrulline-rich neutrophil extracellular traps, thus enhancing rheumatoid autoimmunity.

Disclos…e 2010 criteria. Enzymatic activities in plasma and lymphocytes were measured spectrophotometrically and expressed as nmol/min/ml. Enzymatic activities in lymphocytes were also normalized to 1×107 cells/ml. Statistical tests were selected in line with common guidelines. Differences were considered significant when p<0.05. Reference ranges were calculated as means ±2SD.

Results: 75 adult RA patients (52 females and 23 males, mean age 43.9±0.97 years, mean disease duration 8.5±0.3 years) from the rheumatology unit of Volgograd Clinical Emergency Hospital #25 as well as 35 healthy controls were included in the study. RA patients were statistically divided into three groups: low disease activity group (n=32), moderate group (n=26) and high disease activity group (n=17). XO activity reached its highest values at maximum disease activity and overt chronic fatigue syndrome (CFS), FM and rheumatoid arthritis (RA).

Objectives: This follow-up study uses the gammaCore device (electroCore) to assess the effect of nVNS on PROMs of fatigue and immune responses in patients reported outcome measures (PROMs) of fatigue in patients with primary Sjögren’s Syndrome (1).

Methods: The study included thirteen CFS, fourteen FM and fifteen RA patients who used the gammaCore device twice daily over a 26-day period. Pre- and post- nVNS bloods were drawn at baseline and final visits. Whole blood...