12 months: 4.0) and there was no significant correlation between changes in the metabolome pattern and DAS28-ESR score ($p > 0.05$). Fatigue was negatively correlated with L-serine/creatinine ($r = -0.4$, $p < 0.001$). Appendicular lean mass index (ALMI) also showed a positive difference which correlated with the increase of urea and creatinine ($r = 0.3$, $p < 0.019$).

Conclusion: This prospective metabolomic analysis indicated that the RA might be associated with amino acid metabolism alterations probably related to inflammation injury to muscle and fatigue. These findings suggest that urine metabolome analysis may be an interesting approach to study and monitor the systemic impact of RA.

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AB1332

COST EFFECTIVE BIOMARKER IN PREDICTING SLE IN DEVELOPING COUNTRIES – NEUTROPHIL LYMPHOCYTE RATIO (NLR), PLATELET LYMPHOCYTE RATIO (PLR), MPV

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Background: SLE is a disease which is easily missed in regular clinical practice. In developing countries due to lack of investigation modalities and rheumatologist, early identification of the diseases process is delayed. By the time the patient reaches a higher medical care centre there is a significant time loss and advancement of the disease. NLR, PLR, RDW and MPV can be calculated from a complete blood count which will be available at any grass route health centre.

Objectives: To identify Cost effective biomarkers in predicting SLE in developing countries. Focussing on markers - Neutrophil Lymphocyte Ratio (NLR), Platelet Lymphocyte Ratio (PLR), MPV.

Methods: This is a retrospective hospital based observational study conducted screening patients admitted from January 2016- November 2018 in with a diagnosis of SLE. We identified 150 patients with SLE and their NLR, PLR, and MPV data were collected and were correlated with equal control group without SLE

Results: We found that NLR, PLR, and MPV were highly significant with a p-value of 0.001 to be used as bio marker and also when further analysis was done using ROC curve with an area under curve of 76%, 81% and 78% respectively when compared with the control group.

Conclusion: We conclude that NLR, PLR, and MPV is cost-effective bio marker which costs (< 1 Euro) in predicting SLE and also play a great in monitoring following up referring patient to higher centre for biopsy at a golden period which will aid in early management which will limit the mortality and morbidity associated with the disease

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AB1333

CELL-FREE DNA AND BIOLOGICAL TREATMENT IN PATIENTS WITH RHEUMATOID ARTHRITIS

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Background: Cell free DNA (cfDNA) are DNA fragments released from the cell nucleus into extracellular compartment and is therefore detectable in plasma or serum. The most common reason for this release is tissue damage, cell death and inflammation of diverse origin. In regard to autoimmune diseases, increased levels of cfDNA has been found in plasma/serum in patients with systemic lupus erythematosus (SLE), rheumatoid arthritis (RA) and Sjögren's syndrome. The results of some published works, appointing the correlation between levels of cfDNA and RA activity, are controversial, that's why the position of cfDNA as a potential new biomarker remains unclear.

Objectives: The aim of our study was to describe the effect of biological therapy on the concentration of cfDNA and explore the correlation between therapeutic response DAS28 score and cfDNA levels. This potential correlation could define cfDNA as a new marker of treatment response and also potentially also clarify the role of cfDNA in the pathogenesis of RA.

Methods: Plasma samples of 40 patients with RA were collected before, as well as 3 and 12 months after starting treatment with tumor necrosis factor α -inhibitor (TNF α -inhibitor). Total cfDNA was quantified fluorometrically. Treatment response was evaluated by using DAS 28 scoring system and C-reactive protein.

Results: The treatment with TNF α -inhibitors showed statistically significant changes of DAS28 and cfDNA. According the EULAR treatment response defined by DAS28 changes, patients with good response showed statistically significant decrease of cfDNA in month 3 ($p < 0.005$), but the improvement in month 12 was just on the border of statistical significance ($p = 0.059$). There were also only slight changes in group with moderate DAS 28 response in month 12 ($p = 0.054$). In the entire group there was found slight positive ($r = 0.44$), statistically significant ($p = 0.0073$) correlation between the levels of cfDNA and DAS 28 score after 12 month of treatment.

Conclusion: Even if treatment with TNF α -inhibitors decreases plasma cfDNA, there are other markers with better correlation with disease activity. We consider, that the changes in cfDNA levels after biological treatment could determine the role cfDNA more as a consequence of the inflammation, rather than the cause of inflammation in this autoimmune disease, but further research is needed.

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