there were 32 responders and 13 non-responders. Baseline uTWEAK levels were higher in non-responder LN compared with responders LN. This was observed in both treatment either IVCY (n=25) or MPS (n=24) (175.50±36.97 vs 57.09 ±7.40 pg/mL; p=0.018 or 124.90±34.53 vs 55.69±14.22 pg/mL; p=0.038). The area under the ROC curve to predict response to treatment was 0.79 (95% CI=0.64–0.94). The cut-off level of 94.0 pg/dL predict resistant-to-treat at sensitivity and specificity of 64 and 85 percent, respectively.

Conclusions uTWEAK may be a biomarker that guide treatment of lupus nephritis patients. Targeting TWEAK protein in active lupus nephritis is an interesting choice of therapy.

321 RAPIDLY PROGRESSIVE ILD IN IIM – THE SINGAPOREAN EXPERIENCE

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Background and aims Interstitial lung disease (ILD) can be associated with the idiopathic inflammatory myopathies (IIM). Rapidly progressive interstitial lung disease (RP-ILD) has been recognised in Asian cohorts and has a high mortality. This study aims to describe a cohort of RP-ILD in Singapore, and identify factors associated with RP-ILD.

Methods This is a retrospective study of IIM-ILD patients in the Department of Rheumatology, Allergy and Immunology, Tan Tock Seng Hospital. Patient symptoms, clinical and serologic features, mortality were compared.

Results There were 68 IIM-ILD patients from 2003–12, 63 cases were analysed. RP-ILD was identified in 14 (22%). The RP-ILD group was more likely to be male (42.9% versus 24.5%), were more likely to present with fever (50% vs 14.3%, p=0.01), cough (71.4% vs 34.7%, p=0.03), and dyspnea at rest (21.4% vs 2%, p=0.03). A larger proportion of patients with RP-ILD had amyopathic dermatomyositis (ADM) (35.7% vs 20.4%). None of the patients with RP-ILD had anti-Jo1 (0% vs 34%, p=0.01). All RP-ILD cases deteriorated, with 80% requiring mechanical ventilation. The mortality was 100% in the RP-ILD group (vs 16% in non RP-ILD group, p=0.00). Median time from diagnosis to death was 26 days.

Conclusions We identified ADM and absence of anti Jo-1 as strong associations for RP-ILD. Mortality was 100% in this RP-ILD cohort. Clinicians should have heightened awareness of this phenotype, early management at specialised respiratory care units, aggressive combination immunosuppressive therapy may be key to mortality reduction.

322 DOWN-REGULATION OF MIR-10A INDUCES IL-8 IN HUMAN MESANGIAL CELLS STIMULATED WITH ANTI-DSDNA IGG ANTIBODIES

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Background and aims The objective of this study is to investigate the role of miRNA in human mesangial cells (HMCs) stimulated with anti-dsDNA IgG antibodies.

Methods The HMCs were treated with anti-dsDNA IgG antibodies purified from active systemic lupus erythematosus patients or IgG controls in the presence of normal serum for 3 hours. The small RNA expression profile was screened using high throughput sequencing.

Results The results showed that anti-dsDNA IgG up-regulated 103 miRNAs and down-regulated 20 miRNAs which regulate cell cycle, catabolic process, regulation of transcription and apoptosis pathways. Interestingly, miR-10a in HMCs could be validated as specifically down-regulated in HMCs by anti-dsDNA IgG stimulation. The miR-10a was downregulated in kidney biopsies from lupus nephritis patients and correlated with proteinuria Transiently miR-10a knockdown HMCs increased cells proliferation and up-regulated IL-8 expression. The luciferase assay confirmed that miR-10a down-regulated IL-8 expression by complementary binding to 3'UTR in IL-8.

Conclusions In conclusion, anti-dsDNA IgG Ab down-regulated miR-10a expression in HMC resulting in the induction of various target genes involved in HMCs proliferation as well as inflammation. Manipulation of miR-10a might be a new option for targeted therapy for lupus nephritis.

323 COMPARISON OF CIRCULATING IMMUNE COMPLEX AND INTERLEUKIN-6 WITH STANDARD BIOMARKERS TO DETERMINE SLE DISEASE ACTIVITY

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Background and aims Systemic Lupus Erythematosus (SLE) is an autoimmune disease involving in autoantibody production, immune complex deposition and complement activation. When the disease is active, the sequel can be devastated if inappropriately treated.The outcome of SLE patients can improve if sensitive biomarkers can identify the recent flare and lead the patients to receive the correct treatment in time. This study aimed to investigate whether serum levels of IL-6 and circulating immune complex (CIC) correlated with SLE disease activity and compared with anti-dsDNA and complement.

Methods Ninety SLE patients followed up at Ramathibodi Hospital in 2015 were enrolled. The evaluation of disease activity achieved by Systemic Lupus Erythematosus Disease Activity Index (SLEDAI). The active disease defined if the scores were more than one. Serum IL-6 and CIC tested by ELISA.

Results The level of serum IL-6 and CIC in SLE patients with active disease activity was significantly higher than the inactive disease [5.5 (1.6–99.30) pg/ml vs 3.6 (1.5–35.1) pg/ml, p=0.011 and10.12 (2–131.22) RU/ml vs 2.1 (2.0–101.37) RU/ml, p=0.011, respectively]. The correlation analysis between serum biomarkers and clinical SLEDAI demonstrated that biomarkers significantly correlated with SLE activity are CIC (R=0.331, p=0.001) and IL-6 (R=0.313, p=0.011). CIC had the most area under the curve in discriminating active SLE than IL-6, anti-dsDNA, C4 and C3 (AUC=0.698, 0.677, 0.634, 0.410 and 0.393 respectively)