SUMMARY AND CONCLUSION

The present work aimed to identify the clinical, laboratory and histopathological characteristic of severe proliferative lupus nephropathy, which may also predict the indices for response and using cyclophosphamide therapy in future patients with severe proliferative lupus nephropathy. The subjects of this work comprised 75 eligible patients who had severe proliferative nephropathy class III and class IV (WHO classifications). All patients were subjected to thorough clinical, laboratory, histopathological evaluation emphasizing the role of pathologic indices in the management and prediction of renal outcome in severe lupus nephritis.

The analysis of data showed that monthly intravenous pulse cyclophosphamide with initial dosage 0.5-1.0 gm/m^2 of BSA, does induce rapid and sustained remission without relapse in the majority of patients, but not all patients, up to 12 month follow up period and appears to have a reasonable safety profile despite potential for major toxicity.

An interesting observation in our analysis is that despite the significant associations shown in univariate analysis between several studied potential predictor variables and outcome such as degree of improvement of CNS manifestations, arthritis, oedema and hypertension, serum creatinine, 24-hour urinary protein excretion rate, microscopic haematuria, anaemia, C_3 level, degree of mesangial proliferation, degree of cellular crescent, interstitial fibrosis, degree of fibrous crescent and degree glomerulosclerosis in initial renal biopsy, logistic regression analysis yielded only 4 strong predictors, serum creatinine at presentation, 24-hour urinary protein excretion rate, namely degree of glomerulosclerosis and fibrous crescent in initial renal biopsy. The identified 4 strong predictor variables individually or in combination may be considered as strongest indices for using IV.Cy, therapy and outcome predictions in future patients with severe proliferative lupus nephritis, class III and class IV-WHO classification.

The negative correlation between histological activity and chronicity scores and outcome predictions, and also failure of either AI or CI to appear in final logistic regression model as predictors were observed in our study.

However, despite that, the extreme variability and unpredictability of severe lupus nephropathy and difficulty of therapeutic decision-making of lupus nephritis, we believe that, all patients with class III and class IV-WHO classification must take the chance of therapy at least for 3 months hand in hand with carefully respecting the strongest set of clinical, laboratory, histopathology predictor variables to tailor proper therapy for each patient with significant outcome predictions.

Thus, we have concluded that, excellent initial and sustained remission without relapse was achieved in majority, but not all patients, with severe lupus nephropathy treated with IV.Cy. therapy and appears to have safety profile up to 12 month follow up period. The identified adverse predictors of response with significant outcome predictions based on 2 strongest laboratory variables (serum creatinine and 24-hour urinary protein excretion rate) were significantly enhanced by the addition 2 strongest initial biopsy variables (degree of sclerosis and fibrosis). Consideration of these strong prognostic predictors may contribute to decision-making regarding the type, intensity and response of therapy with significant outcome predictions in future patients with severe lupus nephropathy. And that, as regard to the evidence about limitation of IV.Cy. therapy in some cases and need for developing and evaluating alternative therapy is highly recommended.