Lupus nephritis:of response to intra-venous cyclophosphamide therapy

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The present work aimed to identify the clinical, laboratory andhistopathological characteristic of severe proliferative lupus nephropathy,which may also predict the indices for response and usingcyclophosphamide therapy in future patients with severe proliferative lupusnephropathy. The subjects of this work comprised 75 eligible patients whohad severe proliferative nephropathy class III and class IV (WHOclassifications). All patients were subjected to thorough clinical, laboratory,histopathological evaluation emphasizing the role of pathologic indices inthe managementand prediction of renal outcome in severe lupus nephritis.The analysis of data showed that monthly intravenous pulsecyclophosphamide with initial dosage 0.5-1.0 gm/m2 of BSA, does inducerapid and sustained remission without relapse in the majority of patients, butnot all patients, up to 12 month follow up period and appears to have areasonable safety profile despite potential for major toxicity.An interesting observation in our analysis is that despite thesignificant associations shown in univariate analysis between severalstudied potential predictor variables and outcome such as degree ofimprovement of CNS manifestations, arthritis, oedema and hypertension,serum creatinine, 24-hour urinary protein excretion rate, microscopichaematuria, anaemia, C3 level, degree of mesangial proliferation, degree ofcellular crescent, interstitial fibrosis, degree of fibrous crescent and degreeglomerulosclerosis in initial renal biopsy, logistic regression analysis yieldedonly 4 strong predictors, serum creatinir:9 at presentation, 24-hour urinaryprotein excretion rate, namely degree of glomerulosclerosis and fibrouscrescent in initial renal biopsy. The identified 4 strong predictor variablesindividually or in combination may be considered as strongest indices forusing IV.Cy, therapy and outcome predictions in future patients with severeproliferative lupus nephritis, class III and class IV-WHOclassification.The negative correlation between histological activity and chronicityscores and outcome predictions, and also failure of either AI or CI to appearin final logistic regression model as predictors were observed in our study.However, despite that, the extreme variability and unpredictability ofsevere lupus nephropathy and difficulty of therapeutic decision-making oflupus nephritis, we believe that, all patients with class 11 and class IV-WHOclassification must take the chance of therapy at least for 3 months hand inhand with carefully respecting the strongest set of clinical, laboratory,histopathology predictor variables to tailor proper therapy for each patientwith significant outcome predictions.Thus, we have concluded that, excellent

initial and sustainedremission without relapse was achieved in majority, but not all patients, withsevere lupus nephropathy treated with IV.Cy. therapy and appears to havesafety profile up to 12 month follow up period. The identified adversepredictors of response with significant outcome predictions based on 2strongest laboratory variables (serum creatinine and 24-hour urinary proteinexcretion rate) were significantly enhanced by the addition 2 strongest initialbiopsy variables (degree of sclerosis and fibrosis). Consideration of thesestrong prognostic predictors may contribute to decision-making regardingthe type, intensity and response of therapy with significant outcomepredictions in future patients with severe lupus nephropathy. And that, asregard to the evidence about limitation of IV.Cy. therapy in some cases andneed for developing and evaluating alternative therapy is highlyrecommended.