

Thesis Title ANALYSIS OF SERUM AND URINARY PROTEINS  
IN NORMAL AND RENAL DISEASES BY  
CELLULOSE ACETATE ELECTROPHORESIS

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#### ABSTRACT

A method using dried polyacrylamide gel to concentrate urine samples had been described, tested and used for the purpose of urine proteins analysis. Concentrated urine samples from 10 normals and 100 patients with IgM nephropathy and Systemic lupus erythematosus (SLE) were analysed by Cellulose Acetate Electrophoresis (CAE). The results had demonstrated that the patterns of proteins in the electrophoresis could be used to discriminate the two diseases. The best discriminating power was found in the logarithm of gamma globulin to albumin ratio. In IgM nephropathy the ratio of gamma globulin to albumin is much smaller than the ratio in SLE, indicating relatively larger gamma globulins were excreted in SLE. In addition the ratio can be used to discriminate subgroups of patients with IgM nephropathy. Urine from patients with IgM nephropathy with focal and segmental changes showed significantly higher ratio. The study indicates the usefulness of the technique in discriminating the two common glomerular diseases.