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## CYTOKINES IN DIABETIC NEPHROPATHY

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The rapidly increasing number of patients with ESRD has become a worldwide medical catastrophe. Growing incidence of diabetes mellitus (DM) with the severe consequence of DN is the major reason for this widespread increase. DN, affecting more than one-third of patients with type 1 DM and up to 25% of all patients with type 2 DM, is an extremely common complication of DM that strongly contributes to patient morbidity and mortality. Traditionally, metabolic and hemodynamic factors are the main causes for renal lesions in patients with type 2 DM, while DN has been considered as a nonimmune disease. However, recent studies have shown that chronic inflammation is associated with the development and progression of type 2 DM, implying that immunologic and inflammatory mechanisms may play a significant role in the disease process. Characteristic findings of DN are hypertrophy of glomerular structures, thickening of basement membranes, and accumulation of extracellular matrix (ECM) components. Increased infiltration of monocytes/macrophages, activated T lymphocytes, as well as augmented expression of inflammatory cytokines in the kidney have also been found in patients with DN. The purpose of this review is to bring together current information concerning the role of cytokines in the development and progression of DN. Specific emphasis is placed on the potential interaction and contribution of these cytokines to kidney damage. In addition, gene polymorphism of cytokines and therapeutic strategies targeting of cytokines in the treatment of DN are reviewed.

### Biography

Zheng Cai-Mei has been Graduated from Medical University of Yangon, Burma as Medical Doctor. She attained the specialties including Internal Medicine and Nephrology from the Taipei Medical University, Taiwan. Now, she has her PhD study in Graduate Institute of Medicine, Taipei Medical University, Taiwan, where she continued her research. She is now working as a Nephrologist at Shuang-Ho Hospital, Taipei Medical University, and as Lecturer in Nephrology, Internal Medicine Department at Taipei Medical University.

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