

Immunolocalization of MP84 in renal biopsy sections of sickle cell nephropathy patients

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Nephropathy may develop in patients with sickle cell disease and, characterized by proteinuria and predominantly glomerular lesions, has not been as extensively studied as renal tubular alteration in sickle cell disease.¹ Many factors could play an important role in the pathogenesis of the disease. It has been shown that 25% of patients with sickle cell disease have proteinuria and the glomerular capillary hypertension may be a pathogenic factor in sickle cell nephropathy.²

This is the first study of immunolocalization of MP84 in biopsy sections of three patients with sickle cell nephropathy using alkaline phosphate anti-alkaline phosphate staining (APAAP). MP84 is a novel protein synthesized in response to all cytokines. The antigen is expressed only in stimulated mesangial cells. This protein is virtually specific to stimulated mesangial cells and diseased kidney sections.³⁻⁷ It is synthesized de novo within 30 minutes of administration of II-1 to cultured mesangial cells, whether cycling or arrested. It has been shown that MP84 is expressed in red blood cells of renal transplant recipients.^{8,9}

The present study showed strong staining of MP84 in mesangial matrix, interstitium and tubules, while other cells were less stained for MP84. This pattern of staining is different than that reported by Mukhtar³ of weak staining of tubules and interstitium. The pattern of staining could indicate strong staining of MP84 in

glomerular deposition and secretion in cases of sickle cell nephropathy.

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