

DIFFUSION WEIGHTED IMAGING EVALUATE RENAL FUNCTION IN PATIENT WITH HYPERTENSION RENAL DAMAGE

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To investigate the changes of renal ADC apparent diffusion coefficient and their clinical significances in patients with hypertension renal damage. ADC was detected in Magnetic Resonance Diffusion weighted imaging in 69 cases of primary hypertension in different renal function stages and in 25 control subjects. Renal ADC was significantly lower in chronic renal insufficiency (CRI) compensatory stage group and discompensatory stage group than that in renal function normal group and control group ($P < 0.01$). Renal ADC was significantly lower in patients with second class or third class hypertension than that in control group ($P < 0.01$). Renal ADC was negatively correlated with blood urea nitrogen (BUN) ($r=0.52$) and serum creatinine (Scr) ($r=0.56$), and positively correlated with creatinine clearance (Ccr) ($r=0.62$). Renal ADC did not correlate well with the highest systolic blood pressure ($r=0.36$). The status of renal function and blood pressure relate to renal ADC, which is a measure of evaluating renal damage.