

# PHARMACOKINETICS OF ISONIAZID AND RIFAMPICIN IN PATIENTS WITH CHRONIC RENAL FAILURE

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The single dose pharmacokinetics of Isoniazid (7.5 mg/kg) and Rifampicin (12 mg/kg) were examined in 18 patients with mild or moderate renal failure and 17 patients with severe renal failure. The findings were compared with those in 16 healthy subjects. The renal excretion of Isoniazid and Acetyl Isoniazid and that of Rifampicin and Desacetyl Rifampicin was significantly less in patients with renal failure than in healthy subjects. The decrease was greater in patients with severe renal failure than in those with mild or moderate failure. The exposure (AUC) and half-life of Isoniazid calculated on the

basis of plasma concentrations were significantly higher in slow acetylators in both groups of patients than in healthy subjects. The differences between the two groups of patients were, however, not significant. The plasma Isoniazid concentrations among rapid acetylators and the Rifampicin concentrations were similar in the three groups of subjects, leading to similar exposure and half-life values. These findings suggest that while it is not necessary to reduce the dosage of Isoniazid or that of Rifampicin in rapid acetylators, it is necessary to reduce Isoniazid dose in slow acetylators with renal failure.