

Several studies in diabetic patients have demonstrated a decreased incidence of coronary artery disease with use of drugs that lower the level of LDL cholesterol and hypertriglyceride. Fenofibrate is a fibric acid derivatives that is a strong reducer of triglyceride. Micronized formulation of fenofibrate increases the bioavailability to allow improved efficacy of the drug. This study performed a retrospective comparison of micronized and non-micronized fenofibrate (28 in micronized and 51 in non-micronized group) by comparing means for total triglyceride, total cholesterol, HDL cholesterol and TC/HDL ratio in type 2 diabetics with dyslipidemia. The result showed that after 12 weeks of treatment both drugs produced a significant reduction in total triglyceride levels (62% with micronized, 37% with non-micronized). The mean decrease levels observed for total triglyceride levels were significantly lower for micronized fenofibrate ( $p < 0.001$ ). Both drugs showed a significant reduction for total cholesterol levels (-22% with micronized, -14% with non-micronized fenofibrate). The mean decrease observed for total cholesterol was not statistically significant between the two drugs ( $p = 0.094$ ). HDL cholesterol levels increased by 24% and 15% with micronized and non-micronized, respectively; the differences from the baseline were statistically significant for both drugs. The mean change of HDL cholesterol was not significant between the two drugs. There was a statistically significant reduction in TC/HDL-C ratio from baseline for both drugs (7.1 to 4.8 with micronized, 5.1 to 4.5 with non-micronized), and the reduction of TC/HDL-C ratio tended to be significantly greater with micronized fenofibrate ( $p = 0.008$ ). This ratio correlates well with a reduction in the cardiovascular morbidity and mortality in intervention trials. This study shows that short-term treatment with micronised fenofibrate is more effective than non-micronised fenofibrate in type 2 diabetes patients with dyslipidemia.

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### Development of Vancomycin Dosing Nomogram Based on Clinical Pharmacokinetic Data of Korean Adult Patients

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Vancomycin dosing nomogram was developed based on the clinical pharmacokinetic data of Korean adult patients. Total 99 pairs (peak and trough) of vancomycin serum concentration data from 73 adult patients were obtained in routine therapeutic drug monitoring. The elimination rate constant ( $K_e$ ), half-life ( $t_{1/2}$ ), clearance ( $Cl_{van}$ ), volume of distribution ( $V_d$ ) of the drug in each patients were calculated using one compartment first order pharmacokinetic model. All patients were categorized into three groups based on calculated creatinine clearance ( $Ccr$ ):  $60 \leq Ccr$ ,  $40 \leq Ccr < 60$ ,  $Ccr < 40$  (ml/min). Regression analysis was used to determine significant correlation between  $Cl_{van}$  and  $Ccr$  ( $Cl_{van} = -1.89 + 0.914Ccr$ ,  $r = 0.763$ ) and also significant correlation between  $K_e$  and  $Ccr$  ( $K_e = -0.0037 + 0.00139Ccr$ ,  $r = 0.724$ ). The relationship between  $K_e$  and  $Ccr$ , and the mean  $V_d$  were utilized to develop the nomogram to individualize initial dosing regimen for vancomycin in patients with various degrees of renal function. The nomogram will be an efficient tool to individualized dose of vancomycin for Korean adult patients.