HIGH PREVALENCE OF OBESITY IN THAI RENAL TRANSPLANT RECIPIENTS: A MULTI-CENTER STUDY

Sakarn Bunnag, MD,1 Prajej Ruangkanchanasetr, MD,2 Bancha Satirapoj, MD,2 Attapon Vongwiwatana, MD,3 Nalinee Premasathian, MD,3 Yingyos Avihingsanon, MD4

1Division of Nephrology, Department of Medicine, Rajavithi Hospital,
2Division of Nephrology, Department of Medicine, Phramongkutklao Hospital,
3Division of Nephrology, Department of Medicine, Siriraj Hospital
4Division of Nephrology, Department of Medicine, Chulalongkorn Memorial Hospital

Abstract Submission Number: 90948

PW: ThaiABS04

Background: Obesity is a risk factor for cardiovascular disease and cardiovascular mortality in renal transplant recipients (RTR). There are limited studies of prevalence and associated factors of obesity in Asian RTR.

Methods: A cross-sectional study was conducted during March and December 2012 in four kidney transplant centers in Bangkok, Thailand. Obesity was diagnosed based on the International Obesity Taskforce-proposed classification. At-risk of obesity, obese I and obese II were defined as having a body mass index (BMI) 23–24.9 kg/m², 25–29.9 kg/m² and ≥30 kg/m², respectively.

Results: Of 263 recipients were studied, 50 (19.0%), 70 (26.6%) and 17 (6.5%) had at-risk of obesity, obese I and obese II, respectively. The prevalence of obesity was 23.9% in the first 3 years and rose up to 36.2% after 3 years post transplantation. Age>50 years (OR,2.22; 95%CI 1.32-3.70), systolic blood pressure >130 mmHg (OR,2.36; 95%CI 1.37-4.07), type of antihypertensive medications >1 medication (OR,2.25; 95%CI 1.33-3.79), plasma triglyceride ≥ 150 mg/DL (OR,2.97; 95%CI 1.10-8.01), plasma glucose ≥ 100 mg/dL (OR,3.67; 95%CI 2.10-6.40) and HDL-cholesterol <40 mg/dL in male or <50 mg/dL in female (OR,2.20; 95%CI 1.12-4.33) were associated with the prevalence of obesity. Compared to 176 non-obese patients, obese patients tended to have higher prevalence of chronic kidney disease (57.5% vs 47.2%; P=0.116).

Conclusions: The study demonstrates the high prevalence of obesity in Thai RTR especially after 3 years post transplantation. Obesity is more prevalent in advanced age and variable components of metabolic syndrome in RTR population.

Key words: Body mass index, Chronic kidney disease, Metabolic syndrome