



# The Association Between Body Mass Index and Mortality Among Asian Peritoneal Dialysis Patients: A Meta-analysis

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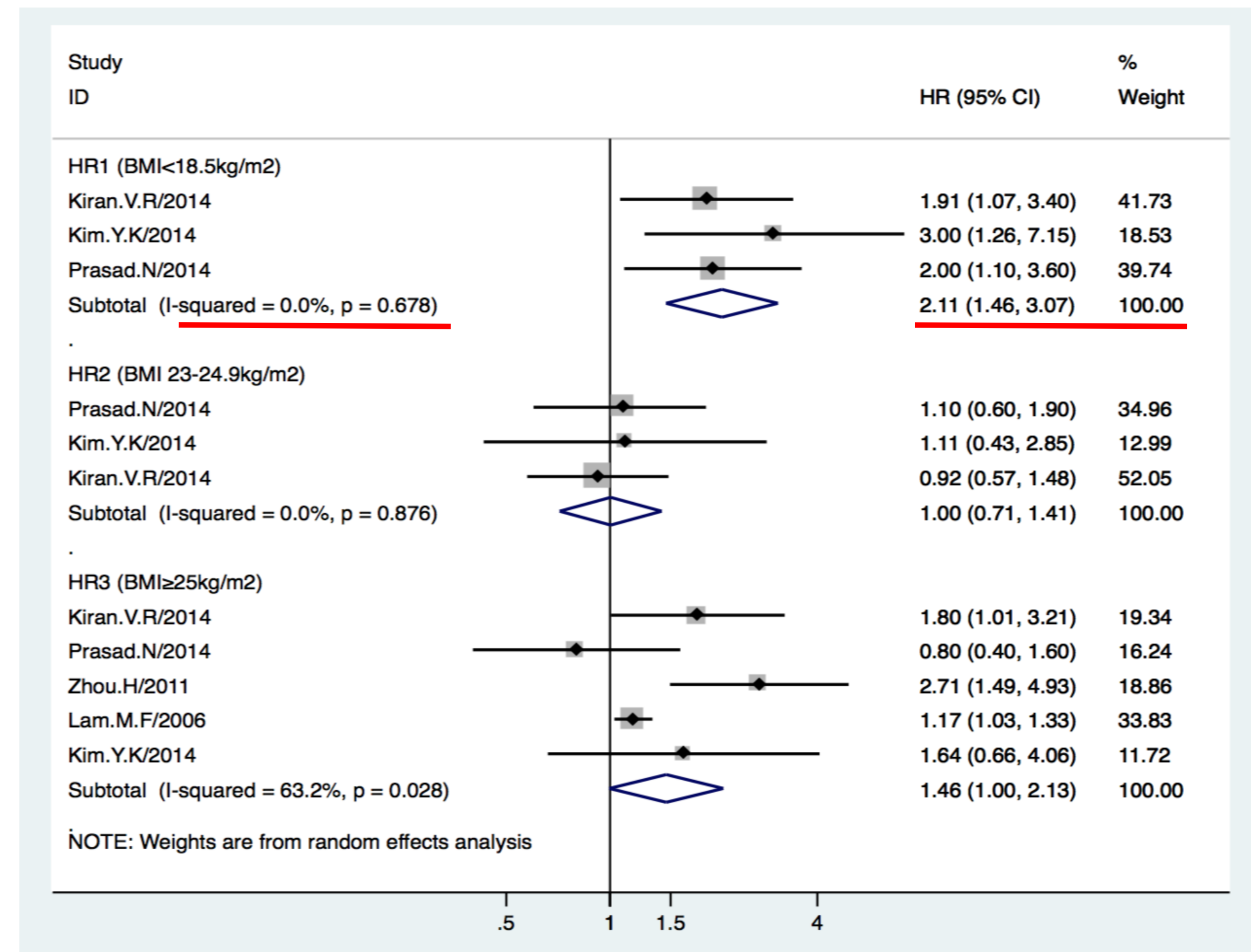
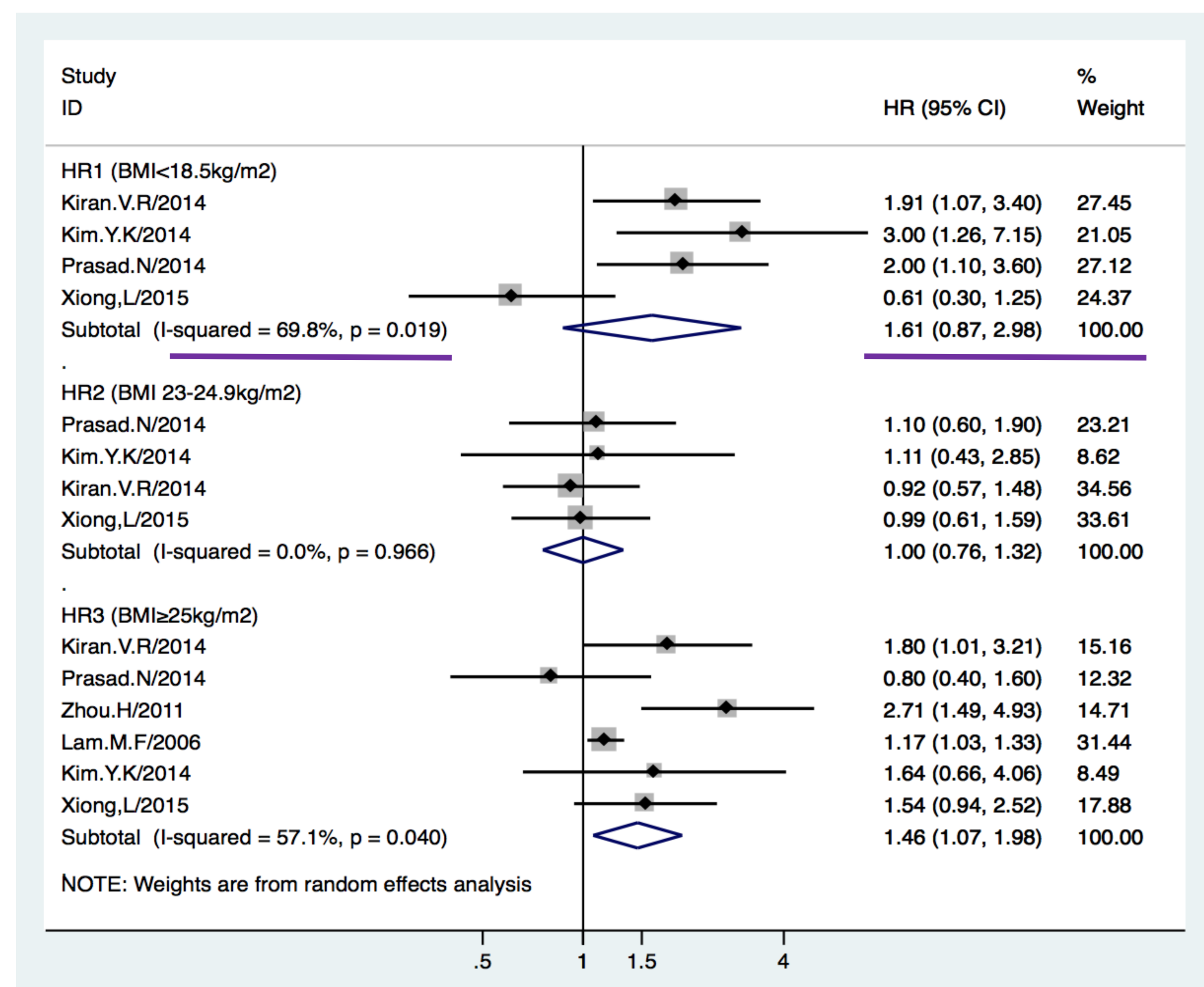
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## OBJECTIVES

Previous studies have revealed that increased body mass index (BMI) is associated with decreased mortality among hemodialysis patients. However, few studies have dealt with the association between BMI and mortality among patients undergoing peritoneal dialysis (PD) and even fewer studies have focused on the Asian PD patients. The reported studies were often non-conclusive and some even yielded contradictory results. This paper, to our best knowledge, registers the first attempt to systematically review the current literature and summarize new results on the association between BMI and mortality among the Asian PD population.

## METHODS

A systematic literature review was performed in Medline and EMBASE to identify relevant cohort studies on all-cause and cardiovascular disease (CVD) mortality stratified by BMI categories tailored to Asians among the Asian PD population. We meta-analyzed individual results based on a random effect model, strictly complying with Preferred Reporting Items for Systematic Reviews and Meta-analysis.



## RESULTS

The paper reviews seven cohort studies with a total of 3,610 Asian PD patients. Obese group (BMI=25-29.9 kg/m<sup>2</sup>) was associated with higher risk of all-cause mortality (HR=1.46, 95%CI [1.07-1.98]; p=0.02) and CVD mortality (HR=2.01, 95%CI [1.14-3.54]; p=0.02), compared to the normal group (BMI=18.5-22.9 kg/m<sup>2</sup>). The underweight group (BMI<18.5kg/m<sup>2</sup>) was also associated with an elevated risk of all-cause mortality (HR=2.11, 95%CI [1.46-3.07]; p<0.001). No significant associations between BMI with all-cause mortality were found among the overweight group (23-24.9 kg/m<sup>2</sup>) (HR=1.00, 95%CI [0.76-1.32]; p=0.9). The association between BMI and CVD mortality risk among the underweight and overweight groups was found nonsignificant (p=0.5 and 0.6 respectively).

## CONCLUSIONS

Obesity is associated with increased mortality in Asian PD patients. The study indicates a “V-shaped” trend in the association between BMI and mortality in these patients.

## References

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