



Vascular Consequences of the Metabolic Syndrome

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Dr Thomas took his PhD in the Department of Medicine and Therapeutics at the Chinese University of Hong Kong. Following his postdoctoral training, he moved in 2002 to the Department of Community Medicine at The University of Hong Kong as Research Assistant Professor, before becoming an Assistant Professor earlier this year.

His early investigations describing genetic, biochemical and anthropometric parameters associated with hypertension recognised the major contribution of obesity to this condition, and the frequent presence of concomitant vascular risk factors. This work developed his current interest in the epidemiology and treatment of metabolic syndrome disease cluster of obesity, hypertension, dyslipidaemia and diabetes.

His investigations have resulted in over 60 indexed articles. He is on the Editorial Advisory Board of 3 international journals, and reviews for many more journals and a number of funding agencies locally and internationally.

Vascular disease is a major cause of morbidity and mortality in the Hong Kong population, to which the conventional vascular risk factors such as hypertension, diabetes, dyslipidaemia, and obesity, particularly central obesity contribute. These factors are frequently found together, and this constellation of risk factors has been termed the metabolic syndrome.

Our data in Chinese subjects has highlighted the continuous nature of these risk factors, with risk increasing even at “normal” levels. These metabolic syndrome components have been shown to influence surrogate markers of vascular disease such as carotid intimal-medial thickness and brachial artery endothelial function. Limited data show that these factors are associated with increasing all-cause and vascular disease mortality. Similarly, the metabolic syndrome also increases the risk of mortality in the local population. Additional environmental factors such as tobacco smoking further impact on these factors synergistically increasing mortality.

In summary, the metabolic syndrome disease cluster increases vascular disease in the local Chinese population.