

City University of Hong Kong
Department of Biomedical Sciences
presents a seminar



“ISCHEMIC AND ANESTHETIC PRE- AND POST-CONDITIONING: THE CHALLENGE OF PROTECTING THE DIABETIC HEART”

By

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Date : 15 December 2015

Time: 2.30pm to 3.30pm

Venue: Room 2-130, 1/F, Block 2, To Yuen Building, City University of Hong Kong, Kowloon Tong

Abstract

Patients with diabetes are more likely to have coronary artery disease (CAD). CAD limits myocardial blood flow and results in angina, left ventricular (LV) dysfunction and myocardial infarction (MI). Reperfusion therapies restore coronary flow, but may cause lethal tissue injury called “reperfusion injury”. Ischemia postconditioning (IPostC), relative to ischemic preconditioning, is more clinically applicable to patients undergoing reperfusion therapies for attenuating myocardial reperfusion injury. However, Diabetes as a significant risk factor for CAD induces defect in the cardioprotective efficacy of IPostC, possibly due to a decrease of nitric oxide (NO) bioavailability. Interestingly, plasma adiponectin levels are decreased in patients with diabetes. Adiponectin-knockout (APN-KO) model has been shown to increase myocardial damage in response to ischemic insult, which can be attenuated by adiponectin supplementation as a result of increased NO production. Thus, we believe that adiponectin deficiency is the mechanism responsible for decreased resistant to ischemia reperfusion injury (IRI) in diabetes. Elevation of circulating adiponectin by either genetic or pharmacological approaches may become new potential therapeutics for restoring diabetic cardioprotective efficacy of IPostC.

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All are welcome