Endocrinology-2013

OMICS Group Conferences
Accelerating Scientific Discovery

World Congress on
Endocrinology

August 26-28, 2013 Raleigh, North Carolina, USA

What are we missing in the pathogenesis and treatment of cardiovascular diseases and type 2 diabetes mellitus?

Jose Mario Franco de Oliveira
Fluminense Federal University, Brazil

Abstract

The reductionist approach to type 2 diabetes treatment; trying to resolve complex problems with simple, one by one, many times with surrogates and simple answers, like the center role of hyperglycaemia or HBA1C lowering for the prevention and treatment of macro or microvascular complications that mostly matter to type 2 diabetics like all-cause mortality, cardiovascular mortality, cardiovascular disease events like myocardial infarction, heart failure, amputations or visual losses, kidney failures and quality of life. So, ignoring the highly phenotypic heterogenety of diabetic individiduals; has ended up with multiple overlapping guidelines, and less than desirable outcomes. Obesity, type 2 diabetes mellitus, and related cardiovascular and renal diseases are all highly interrelated clinical conditions, due to concomitant atherosclerosis. The purpose of this Lecture is to provide the audience with the proof of concept and the evidence that, cardiovascular diseases and type 2 diabetes mellitus have at least one major common and continuous etiologic and pathogenic pathway in their natural histories. In addition, we aim to show that the maladaptive white adipocyte is one of the primary cell drivers for both diseases. According to this concept, type 2 diabetes is mainly a complex, evolutionary, and atherogenic cardiovascular disease, primarily associated with modern lifestyle; rather than—as previously believed — a mainly disease of the carbohydrate metabolism. Thus, the preventive and therapeutic interventions directed to this maladaptive white body adipocyte constitute the best clinical approach for the metabolic demands and complications of type 2 diabetes mellitus. This approach—moving beyond the medical paradigm of hyperglycaemia, and emphasising the commonality of complex maladaptive roots for both atherosclerosis and type 2 diabetes mellitus should also reduce macrovascular and microvascular complications in type 2 diabetics more effectively.

Biography

I am the Deputy Editor for Diabetes at the Community Forum of healthcare professionals in British Medical Journal. I am an Associate Professor in the Department of Medicine at Universidade Federal Fluminense, and a Senior Staff Physician in the Intensive Care Unit-Adults at Hospital Federal da Lagoa, all in Rio de Janeiro, Brazil. I have a special interest in type 2 Diabetes, Preventive Cardiology, Hypertension, the renin-angiotensin-aldosterone system and Cardiovascular Diseases associated with Chronic Kidney Diseases. I also have been a principal investigator, and have published clinical studies&Letters to Editors about the mechanisms of cardiovascular diseases associated with type 2 diabetes mellitus in peer reviewed journals like British Medical Journal, Hypertension, New England Journal of Medcine, and American Journal of Hypertension. I was also a post-doctoral Clinical&Research Fellow in the Endocrinology-Diabetes and Hypertension Division of the Brigham&Women´s Hospital at Harvard Medical School where I did many angiotensin II infusions in humans, normotensive, hypertensive, and diabetic individuals. When at Harvard Medical School, I also became certified in the Principles of Epidemiology by the Harvard School of Public Health. I expect for the newer future better prevention and treatment strategies for macrovascular and microvascular diabetic complications, based on more rational and effective strategies. In the University, I am proud of running a busy Hypertension and type 2 diabetes clinic. At British Medical Journal, I enjoy the freedom and internationality of opinions. And also expect a brighter debate about all the clinical future research patways and controversies surrounding diabetes mellitus.