The target treatment of type 2 diabetes and the incidence of macrovascular diseases. What are we missing?

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In both type 1 and type 2-diabetes, cardiovascular diseases are the leading causes of morbi-mortality in infancy, adolescence and adulthood. And this is proved now-a-day by an increasing number of new epidemiological data which shows an increase in the risk of cardiovascular events. The evidence from earlier trials have demonstrated that improvement in glycated hemoglobin will reduce the risk of micro vascular disease but there is lack of robust evidence to suggest whether improvement in glycemic control will have similar beneficial outcomes on macro vascular disease. Also, despite all controversies surrounding the etiology, pathogenesis and therapeutic role for hyperglycemia in the mostly common form of diabetes, type 2 diabetes mellitus, newer anti-hyperglycemic drugs are still getting onto the market at a high speed, due to the confidence in HbA1c as a surrogate outcome for micro-vascular complications; albeit all large recent randomized clinical trials and meta-analysis have shown that trying to achieve glycemic levels close to the normal range did not reduce the most clinically important micro-vascular or macro-vascular hard endpoints as end-stage renal disease, vision loss, amputations, strokes, fatal myocardial infarctions, heart failure, cardiovascular and total mortalities, with the added harm of substantial increase in the number of hypoglycemic episodes. In summary, cardiovascular diseases are still the number one cause of mortality for both type 1 and type 2 diabetes, independent of blood glycemic levels of control and we do not know the reasons for that, being probably multi-factorial.

Biography
Jose Mario Franco De Oliveira is an Associate Professor of Medicine in the Department of Medicine of Universidade Federal Fluminense, in the State of Rio de Janeiro, Brazil. He is also one of the Deputy Editors for Diabetes of The British Medical Journal. He has published a number of papers and served as a reviewer or author & co-author for many prestigious medical journals like Hypertension, The American Journal of Hypertension, The Journal of the American Society of Nephrology, The British Medical Journal and the New England Journal of Medicine. His main interests are in the clinical research of diabetes and hypertension. He is a Certified Preventive Cardiologist, Nephrologist and Adult Intensive Care Unit Physician. He was a Post-doctoral Clinical & Research Fellow at the Endocrinology-Hypertension-Diabetes Division of the Brigham & Women's Hospital at Harvard Medical School, in Boston, USA and is one of the two authors of the recent electronic Diabetes e-book published and edited by the British Medical Journal for all doctors world-wide.

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