

11<sup>th</sup> International Conference on

# Vascular Dementia

February 15-16, 2019 Amsterdam | Netherlands



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## Very low density and low density lipoprotein contribution to vascular dementia (VD)

Traditional lipid profiles do not identify the risk of VD that are caused by the presence of small dense LDL and IDL particles. Dangerous LDL particles may hide behind normal cholesterol levels and, conversely, elevated cholesterol levels do not inevitably have to be associated with a VD risk. Studies (eg Reitz et.al. 2004) have shown that the classical lipid profiles of patients with coronary artery diseases do not significantly differ from those of healthy persons. LDL cholesterol, the lipid that is most frequently associated with vascular dementia, is heterogeneous and consists of up to seven sub-fractions. Large circulating LDL particles are less atherogenic. This paper analyses subjects' lipoprotein into five major classes: chylomicrons, very low density lipoprotein (VLDL), intermediate density lipoprotein (IDL), low density lipoprotein (LDL) and high density lipoprotein (HDL). Half of subjects without vascular dementia have higher cholesterol levels. A considerable portion of vascular dementia patients have low cholesterol levels. Individual differences exist in particular with respect to the LDL levels and here, even more importantly, in the size distribution of the LDL particles. The small LDL particles in particular have a very high atherogenic potential. It is less important how much cholesterol a patient has, but which type of cholesterol is elevated and which size distribution the cholesterol particles have. These are the parameters the risk assessment and the treatment should focus on.

### Biography

Edward Chan has completed his Masters in Nutritional Medicine with the Society for Advancement of Hormones & Healthy Aging Medicine Malaysia, Masters in Learning from Lancaster University, UK and Doctorate in Psychology from the Intercultural Open University School of Medicine. He is the principal consultant of WellLab, a premier laboratory diagnostic testing organisation. He has published numerous papers in reputed journals and has been serving as an editorial board member of repute.

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