

3rd International Conference on

Genomics & Pharmacogenomics

September 21-23, 2015 San Antonio, USA

Familial hypercholesterolemia in the Middle East: What have we learned recently?

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Introduction: The chronicles of Familial Hypercholesterolemia (FH) in the Middle East started sixty years ago with the first description of Essential Hypercholesterolemia in numerous Lebanese families by Khachadurian et al in 1962. Later, the field of FH and atherosclerosis expanded exponentially with numerous reports of mutations. FH became the number one cause of genetic Cardio-Vascular Disease (CVD) worldwide.

Method & Results: Through follow up and close observation of the status of FH in the Middle East and North African (MENA) countries have shown a global under reporting, poor management and premature death in obvious genetic FH cases. Furthermore, emergence of the third culprit PCSK9 gene associated with FH by efforts of Middle Eastern scientists has flourished the concept. Finally, surveillance of FH cases had aided in the understanding of the incidence of aortic calcification and the essential role of inflammation as a neglected marker and target of therapy in these individuals.

Conclusion: Efforts to establish a registry and cascade screening for FH in the MENA countries is undergoing to improve the recognition of cases in the MENA communities, increase awareness of the number one genetic risk for CVD and prevent premature atherosclerosis in FH. This registry will positively identify novel FH mutations which will have remarkable implications in the care of FH in this region and the world.

Biography

Zuhier Awan is a Physician-Scientist at King Abdulaziz University and an Adjunct Professor at McGill University. He has completed a combined training in Internal Medicine and Medical Biochemistry at McGill University and a Postdoctoral Fellowship in Cardiovascular Genetics followed by a Fellowship in Preventive Cardiology and Advanced Clinical Lipidology. Later, he earned both MSc and PhD degrees with honors from the Department of Biochemistry and Molecular Medicine from University of Montreal and did his thesis in PCSK9 and the Prevention of Cardiometabolic Disease in Familial Hypercholesterolemia.

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