Background and Aims: Heterozygous familial hypercholesterolemia (heFH) is a common autosomal dominant disease with a prevalence of 1:500 in the general population. Based on this prevalence, approximately 2740 Kuwaitis have heFH. The aim of this study was to find the prevalence of heFH among Kuwaiti population using the Dutch Lipid Clinic Network criteria (DLCN) for the diagnosis.

Methods: The prevalence of FH in Kuwaiti population was estimated from the Eastern Mediterranean Approach for Control of Non-Communicable Diseases (EMAN) survey database. It included 4391 subjects aged 18-69 years randomly selected. It was collected between March and September 2014. Subjects with LDL values equal or higher than 4 mmol/L (n=321) were selected in our study. The DLCN criteria was applied on the participants, in which a diagnosis of FH was considered definite, possible, or probable.

Results: A total of 40 individuals were interviewed. The prevalence of individuals classified with definite FH (score ≥8) is 2.5%, probable FH (score 6-7) is 10%, possible FH (score 3-5) is 30%, and unlikely FH (score <3) is 57.5%. The estimated prevalence of possible, probable, and definite FH combined is 0.4% or 1 in 250.

Conclusions: The prevalence of heFH in Kuwait is higher than commonly perceived in the general population. The current population of Kuwaitis is 1,370,0132. Therefore, based on our established prevalence (1:250), around 5480 persons in Kuwait carry one of the genes of heFH. Hence, a heFH registry is essential to prevent premature cardiovascular disease (CVD).

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PRELIMINARY RESULTS OF THE EGYPTIAN FAMILIAL HYPERCHOLESTEROLEMA RESEARCH FORUM REGISTRY

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Background and Aims: The aim of the familial hypercholesterolemia research forum (FHRF) is to collect data about the clinical and laboratory phenotypes of the Egyptian patients with FH. We present preliminary results of the Egyptian registry

Methods: An online electronic case report form (e-CRF) was prepared to collect data matching the protocol of the familial hypercholesterolemia Studies Collaboration (FHSC) of the European Atherosclerosis Society (EAS)

Results: From August 2017 to September 2018, 49 cases with FH (33% males, mean age 45 ±15 years) were enrolled. Median time from diagnosis to enrollment was 8 (range 1-20) years. Dutch Lipid Network criteria was used in all patients, with 31%, 12% and 57% in the definite, probable and possible categories respectively. Mean baseline levels for total cholesterol was 339±100 mg/dl, for triglycerides was 217±137 mg/dl, for LDL-C was 249±98 mg/dl and for HDL-C was 46±15 mg/dl. For economic reasons, no genetic tests were done for diagnosis confirmation. All patients received lipid-lowering therapy (41% monotherapy and 59% combination with Ezetimibe). Fibrates were added in 10% of cases. Only one patient received lipoprotein apheresis. No patients received PCSK-9 inhibitors

Conclusions: The Egyptian FHRF registry, to our knowledge, is the first FH registry in Egypt. The preliminary results showed that the e-CRF system is feasible and reliable. The phenotype of enrolled FH cases showed very high lipoprotein levels, aggressive atherosclerosis and inadequate therapeutic interventions. Further registry data will provide detailed insights about the magnitude of the problem in Egypt

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