

abdominal aortic malondialdehyde (MDA) levels in the hypercholesterolemia rat model induced by shortening.

Methods: A total of 19 stored biological material samples in the form of Wistar abdominal aortic organs were divided into 5 groups, namely the negative control group (C-) only received standard food, positive control group (C+) were given a high-fat diet and standard food, the T1 group was given standard food, high-fat diet, and probiotics at a dose of 1.65x cfu/kg, T2 group given standard food, high-fat diet, and probiotic dose 5.5x cfu/kg, T3 group given standard food, high-fat diet, and probiotics dose 1.65x cfu/kg. This treatment was given for 10 weeks then the data obtained were analyzed using the Kruskal Wallis test with Mann-Whitney post hoc.

Results: The mean of MDA levels were C- group (1.78 ± 0.11 nmol/gram), T3 group (2.20 ± 0.06 nmol/gram), T2 group (3.46 ± 0.16 nmol/gram), T1 group (4.02 ± 0.02 nmol/gram), and C+ group (5.23 ± 0.51 nmol/gram). The data analysis showed a significant difference in abdominal aortic MDA levels ($p < 0.05$).

Conclusions: There is an effect of probiotics on MDA levels in the abdominal aorta in hypercholesterolemic rats model induced by shortening.

EP245 / #54, TOPIC: ASA02 - LIPIDS AND LIPOPROTEINS / ASA02-09 LIPID AND LIPOPROTEIN METABOLISM, POSTER VIEWING SESSION. EGYPTIAN ASSOCIATION FOR VASCULAR BIOLOGY AND ATHEROSCLEROSIS (EAVA) CONSENSUS ON THE USE OF INCLISIRAN IN CLINICAL PRACTICE

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Background and Aims : Small interfering RNA molecules (siRNA) e.g., Inclisiran represent an attractive alternative to monoclonal antibodies for Proprotein convertase subtilisin/kexin type 9 (PCSK9) lowering. These molecules offer profound lowering of (intra- and extracellular) PCSK9 at a lower-dose frequency and potentially at a lower cost. Inclisiran has undergone phase 1, 2, and 3 evaluation all within the context of the ORION trials, with good efficacy and safety. Considering that Egypt is a middle-income country with a burdened economy, concerns are raised on which patients would benefit from this expensive medication. Therefore, the Egyptian Association for Vascular biology and Atherosclerosis (EAVA) took the responsibility of providing the 1st Egyptian consensus on the use of Inclisiran in clinical practice.

Methods: EAVA analyzed the data that would enable us to obtain clear indications for the use of Inclisiran.

Results: Dyslipidemia represents a major atherosclerotic risk factor in Egypt. Among Egyptian patients with acute coronary syndromes, it has been estimated that the prevalence of dyslipidemia is 48%, and that of 'at-least-possible' FH is 17%. Reaching low-density lipoprotein cholesterol (LDL-C) goals is difficult as well.

Conclusions: We recommend the use of Inclisiran in addition to statins ± ezetimibe in patients with either [1], established ASCVD or [2], FH with one of the following: another major risk factor, eGFR < 30 ml/min, or very-high risk DM, who didn't reach LDL-C goals and/or with true statin intolerance.

EP246 / #1144, TOPIC: ASA02 - LIPIDS AND LIPOPROTEINS / ASA02-09 LIPID AND LIPOPROTEIN METABOLISM, POSTER VIEWING SESSION. NORMALIZING EFFECTS OF BACTERIAL SERUM OPACITY FACTOR ON PLASMA LIPIDS, TISSUES, AND ATHEROSCLEROSIS

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Background and Aims : Although plasma HDL-C levels negatively correlate with atherosclerotic cardiovascular disease (ACVD), attempts to reduce ACVD risk by raising plasma HDL have disappointed. Thus, hypotheses about salutary HDL effects have shifted from higher-is-better to function-is-more-important. The SRB1^{-/-} mouse is an extreme model of HDL dysfunctionality; compared to WT mice, SRB1^{-/-} mice have higher plasma HDL levels and an HDL surface that is free cholesterol (FC)-rich (60 vs. 15 mol%). This would be expected to increase HDL-FC bioavailability to cytotoxic levels. HDL dysfunctionality among SRB1^{-/-} mice is associated with multiple metabolic abnormalities—impaired cell membrane structure and function and atherosusceptibility, despite having high plasma HDL-C levels; moreover, female SRB1^{-/-} mice are infertile. Liver-specific SRB1 expression in SRB1^{-/-} mice normalizes HDL size and FC content. Thus, the SRB1^{-/-} mouse phenotype is due to lack of hepatic clearance of lipids from dysfunctional HDL. Our studies used the SRB1^{-/-} mouse model to determine the effects of SOF on plasma and tissue lipids, as well as atheroregression or atheroprevention in high-fat fed mice.

Methods: The AAV-SOF was delivered by IP injection leading to the endogenous expression of SOF. Mice were fed a Cocoa Butter Diet (Envigo) for 18 weeks before being administered AAV-SOF for atheroregression study, while AAV was given jointly with diet for the atheroprevention study.

Results: Preliminary results show there was no significant difference in total average plaque area of the treated mice vs. controls. However, when grouped by gender, males had less plaque burden than female mice.

Conclusions: SOF treatment reduced plasma lipid levels compared to controls.

EP247 / #1383, TOPIC: ASA02 - LIPIDS AND LIPOPROTEINS / ASA02-10 MODIFIED LIPOPROTEINS, POSTER VIEWING SESSION. PLASMA SMALL-DENSE LDL MODULATION IN PATIENTS WITH THYROID DYSFUNCTION: ROLE OF OBESITY AND TYPE 2 DIABETES MELLITUS

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Background and Aims : To associate plasma small-dense LDL (sdLDL) to thyroid dysfunctions with and without Type 2 diabetes mellitus (T2DM) and obesity.

Methods: Our cross-sectional study included 87 patients, divided into 69 hypothyroid patients and 18 hyperthyroid patients. SdLDL and large LDL were separated by a selective precipitation method.

Results: The comparison of the lipid profile between the two groups showed a significant difference in favor of hyperthyroid patients, since hypothyroidism induces hypercholesterolemia (increased LDL-C) with a predominance of sdLDL. Whereas dyslipidemia in hyperthyroid patients is characterized by an increase of high-density lipoproteins (HDL) and large LDL. Pearson's correlation test reveals a closed correlation between the hormonal status and plasma sdLDL in hypothyroid patients ($p < 0.01$). However, in hyperthyroid patients, we noted a positive correlation of thyroid hormonal status with plasma large LDL ($p < 0.05$). Multiple linear regression shows that correlations with sdLDL are maintained only when the thyroid dysfunction coexists with obesity and T2DM. However, large LDL is associated with hyperthyroidism independently of obesity and diabetes.

Conclusions: Our data suggest that dyslipidemia, mainly increased sdLDL, is associated to hypothyroidism rather than hyperthyroidism and that obesity and T2DM interfere in this association.

EP248 / #751, TOPIC: ASA02 - LIPIDS AND LIPOPROTEINS / ASA02-10 MODIFIED LIPOPROTEINS, POSTER VIEWING SESSION. VIRAL SIALIDASES AND ATHEROSCLEROSIS

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