chronic cystic acne. Seven months after starting KD, his lipid panel showed TC 488.7 mg/dL, HDL-C 54.4 mg/dL, LDL-C 393 mg/dL, VLDL-C 41.5 mg/dL, and triglyceride 207.5 mg/dL. Lipid panel was repeated in 2 days to exclude a possible laboratory error but it confirmed the previous result and repeat LDL-C was 380 mg/dL. Fasting plasma glucose (FPG) was 91 mg/dL. HbA1c was normal at 5.0%. Uric acid was elevated at 8.9 mg/dL (reference 3.4–7.0). High sensitivity C-reactive protein was not elevated at 0.13 mg/dL (reference <0.5). Total 25 hydroxy-vitamin D level was normal at 43.9 ng/mL (reference 30–100). CBC, renal function, and liver function tests were all normal. Since the patient declined statin therapy, he was counseled to decrease saturated fat (e.g. animal-based) intake and to liberalize his carbohydrate intake (i.e. 30% of total calorie intake instead of his baseline of 5–10%). Two weeks after doing so, lipid panel was remarkable for TC 371.2 mg/dL, HDL-C 49.7 mg/dL, LDL-C 279.0 mg/dL, VLDL-C 42.26 mg/dL and TG 211.3 mg/dL. Six weeks from the initial lipid panel, repeat testing showed TC 266.2 mg/dL, HDL-C 54.4 mg/dL, LDL-C 190.0 mg/dL, VLDL-C 21.64 mg/dL and TG 108.2 mg/dL. The patient remained without any major symptoms, namely no symptoms of cardiovascular disease.
Conclusion: To the best of our knowledge, our patient had the highest reported KD-induced increase in LDL-C (297% increase) despite normal baseline and no history of familial hypercholesterolemia. Dietary modification alone resulted in 29% decrease in 2 weeks and 52% decrease in six weeks. A limitation to this case report is the lack of lipid panel subfractionation as previous studies showed KD to result in a decrease in small LDL particles (atherogenic) and an increase in large LDL particles (non-atherogenic). More research is needed on the long-term health consequences of KD. Despite guidelines on how to manage KD-induced hyperlipidemia are greatly needed, they are lacking.

Adipose Tissue, Appetite, and Obesity

NOVEL INSIGHTS FROM THE CLINIC INTO THE DEVELOPMENT OF METABOLIC DISEASE: CASE REPORTS

The Effectiveness of Adding Pharmacotherapy to Dietary Counseling for Veterans in a Veterans Health Administration Move! Weight Management Program.

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Background: Over 78% of veterans are overweight or obese. MOVE! is the VA's national evidence-based self-management program. This program focuses on health and wellness through healthy eating, physical activity, and behavior change (1). We evaluated the effects of adding pharmacotherapy to dietitian coaching in a real-world MOVE! Program in the VA Nebraska-Western Iowa Health Care System.
Methods: A systematic retrospective and prospective chart review were completed of 66 patients who completed a minimum of 6 months of medication at our Weight Loss Medicine clinic from June 2017 to February 2020. Body composition was measured using SECA Bio Electrical Impedance Analyzer. Descriptive statistics were used to analyze weight changes, fat mass (FM), and fat-free mass (FFM) changes at 6 and 12 months after starting weight loss medications.
Results: The percentage of patients with a 5% decrease in weight from baseline after at least 6 months with pharmacotherapy was 47% and a 10% decrease was 36% after 12 months. In 6 months, a decrease of a minimum of 5% was seen with GLP-1 (semaglutide or liraglutide) 55 % (29/53), orlistat 11% (1/9), and bupropion-topiramate 25 % (1/4). An average of 3.4% FM decrease and a 3.47% FFM increase was seen from baseline to 6 months and 4.8% FM decrease and 4.7% FFM increase was seen from baseline to 12 months.
Conclusion: A clinically significant decrease in weight was seen at 6 and 12 months after starting weight loss medication in addition to monthly MOVE! Dietitian visits. A significant decrease was seen in FM and an increase in FFM. Veteran's receiving a GLP-1 had a greater amount of weight loss compared with Orlistat and bupropion-topiramate. Weight loss medication is recommended as an adjunct to dietitian counseling for optimizing weight loss.
References
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Adipose Tissue, Appetite, and Obesity

NOVEL INSIGHTS FROM THE CLINIC INTO THE DEVELOPMENT OF METABOLIC DISEASE: CASE REPORTS

The Use of Liraglutide in Obese Patients With COVID-19: A Case Report

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Introduction: In December 2019, a new type of coronavirus was discovered in Wuhan, China, characterized by a picture of atypical pneumonia composed of fever, dry cough and progressive dyspnea. Autopsy analyzes of patients with Covid-19 were performed, and hyperactivation of cytotoxic T cells was observed, suggesting an increase in humoral-type immunological signaling, where interleukin 6 (IL-6) is a mediator present that can fit as a potential critical agent for exacerbation of inflammatory conditions. In addition, not only interleukin-6, but also serum C-reactive protein (CRP) and ferritin have been recognized as strong predictors of COVID-19 severity. Recent studies have shown that the use of liraglutide has antioxidant and anti-inflammatory effects in vitro. Thus, the present case report discusses the possible anti-inflammatory properties of the antidiabetic drug liraglutide (Saxenda), in Covid-19. **Clinical Case:** JCMS, 45 years, male, married, obese grade 2 (BMI: 38.2), sought medical service on August 18, 2020, bringing a positive result of the RT-PCR test for Covid-19, performed in last day. The patient was in good general condition, reporting mild headache and adynamia.