and high adherence to Mediterranean diet. Further analyses are required to explore the associations among the variables considered as key factors for adolescents' healthy development.

A45

FOOD DATABASE OF ENDOCANNABINOIDS, N-ACYLETHANOLAMINES AND N-ACYLPHOSPHATIDYLETHANOLAMINES AND DAILY INTAKE IN WESTERN, MEDITERRANEAN AND VEGETARIAN DIETS

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Introduction: N-acylphosphatidylethanolamines (NAPEs), N-acylethanolamines (NAEs), and the endocannabinoids (ECs) are lipids involved in different physiological processes in both animals and plants. NAEs derive from NAPEs through the action of NAPE-PLD. NAEs can be hydrolyzed by FAAH and form free fatty acids and ethanolamine. In animals, NAEs and ECs activate the cannabinoids receptors, the vanilloid receptor/TRPV1, peroxisome proliferator-activated receptor-α (PPAR-α) and G protein-coupled receptors present along the gastrointestinal tract (GIT). The activation of receptors is involved in the regulation of food intake, lipid metabolism, release of gut peptides and pain modulation. Although the presence of NAPEs, NAEs and ECs in foods is recognized, their content in foods is underestimated.
Objectives: The objectives of this study were to determine the concentration of NAPEs, NAEs and ECs in 43 foods and to estimate their daily intake through a diet that follows the principles of Mediterranean (MD), Vegetarian (VD) and Western Diet (WD). The concentration of NAPEs, NAEs and ECs in foods was determined by LC-HRMS analysis. The diets provided 2,000 kcal.
Results: NAPEs and NAEs are most abundant in vegetables products than in animal products, while the opposite was found for the ECs. The estimated daily intake of NAPEs was hundreds of milligrams with abundance being in MD = VD>WD. The intake of NAEs and ECs was hundreds or tens of micrograms; the abundance of NAEs was in MD = VD>WD, while that of ECs was in MD = WD>VD.
Conclusions: Food choices influence NAPEs, NAEs and ECs intakes. It is likely that those compounds may contribute to the biological effects of diets in short and long periods.

A46

LONG-TERM EFFECTS OF THE KETOGENIC DIET ON GROWTH IN CHILDREN WITH RESISTANT DRUG EPILEPSY AND GLUCOSE TRANSPORTER TYPE 1 DEFICIENCY SYNDROME

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Introduction: The ketogenic diet (KD) is an effective therapeutic option for patients with drug-resistant epilepsy (EFR) and is the only therapy currently available for Glucose Transporter Type 1 Deficiency Syndrome (GLUT1-DS). Studies on long-term effects and, particularly, on growth are required.
Methods: Primary objective: evaluate the growth trend in children with EFR and GLUT1-DS treated with KD. Secondary objective: identify patients with growth retardation eligible for diagnostic tests to identify GH deficiency. Retrospective study, conducted on children (age 1-15 years) affected by EFR (n 23) and by GLUT1-DS (n 22) treated with classical KD for at least 1 year and with follow-up of at least 6 months. All subjects underwent measurements of anthropometric (height, weight, body mass index, body circumferences), auxological (genetic target, growth rate), body composition (skinfold thickness, bioimpedance) parameters. Patients with a height ≤-3 DS or height ≤-2DS and growth rate ≤-1DS were considered pathological (Note 39 AIFA).
Results: All patients showed significant changes in weight and height at 12 months. 3 patients with EFR and 10 patients with GLUT1 were diagnosed as pathological. There were no differences between the variables analyzed at baseline and at 12 months between pathological GLUT1 and non-pathological GLUT1.
Conclusions: Preliminary analysis showed a higher incidence of short stature in patients with GLUT1 compared to epileptics. The disease could directly affect growth through a defective GH secretion induced by the GLUT1 mutation. A total of 13 patients are candidates for diagnostic studies of GH deficiency. A larger number of patients is required to allow optimal stratification of subjects to investigate relationship between diet variables and growth.

A47

SUPPORT OF NUTRITIONAL THERAPY IN THE KOREIC SYNDROME: CLINICAL CASE

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Introduction: The choreic syndrome is characterized by irregular, arrhythmic movements, variable location, difficulty in phonation and deglutition and increase in energy expenditure. The aim of the study was to evaluate the weight variation and body composition during nutritional therapy.
Methods: A 53-year-old man with choreic syndrome diagnosis in 2015 and weight loss of 20 kg in the last 8 months before our observation. The patient reports irregular episodes of dysphagia for solids and liquids, burning in the oral and perioral region. The nutritional state was evaluated using: athropometric parameters, body composition by bioimpedance analysis and dietary intakes with a follow-up of 24 months. Dietary plan: energy, 2466 Kcal/die; proteins, 109 g/die (17.7%); lipids 70 g/die (25.5%); glycid 373 g/die (56.8%); privileged complex carbohydrates, vegetable fats and high biological value proteins. The caloric intake was distribute into 5 meals /die. The consistency of the dishes was made creamy and thickeners were used for liquids which have been recommended to receive adequate intake.
Results: The diet compliance was good. At baseline and after 24 months of dietotherapy we observe: weight increase 47.8 Kg vs 55.5 Kg, increase of BMI 18 kg/m2 vs 21 kg/m2, respectively; maintenance of the BCM and recovery of a normoidratation state. The patient reports a subjective well-being.
Conclusions: Despite the excessive energy expenditure resulting from hyperkinesis and complications associated with the choreic syndrome, adequate nutritional therapy allows a recovery of body weight with good preservation of muscle mass and hydration status. This contributes to improving the quality of life in the course of pathology.

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BODY DENSITY ESTIMATION FROM MULTI-FREQUENCY BIOELECTRICAL IMPEDANCE ANALYSIS MEASUREMENTS

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