

**SUN-P176****THE EFFECT OF AMINO ACID KETOANALOGS ON THE NUTRITIONAL STATUS AND MORBIDITY OF MALNOURISHED PERITONEAL DIALYSIS PATIENTS**

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**Rationale:** One reason for protein malnutrition in patients with peritoneal dialysis is increased protein requirements due to high protein loss of dialysate and loss of appetite due to uremic toxemia. Among the possible nutritional interventions in CKD patients ketoanalogues (KA) of amino acids supplementation deserves particular attention. The purpose of the study was to evaluate the effects of treatment with amino acid ketoanalogues on the nutritional status and morbidity of peritoneal dialysis patients with malnutrition.

**Methods:** The study group was composed of 24 PD patients with diagnosed malnutrition. Patients were randomly assigned to the intervention and control groups.

The intervention consisted of administration of KA for 3 months at a dose of 9 tablets of Ketosteril® daily. The several laboratory parameters and nutritional status were monitored during the study.

**Results:** NRS 2002 and SNAQ showed significant improvement of nutritional status and appetite in intervention group after observation period. The increased of nPCR was noticed in intervention group after 3 months of treatment (0.93 vs 1.14 g/kg/day), whereas in the control group nPCR was decreased (1.13 vs. 0.98).

During the study lean body mass - LBM (kg) did not change in the control group (36 vs 37 kg), but in the intervention group increased (38 vs 44 kg). Laboratory markers of inflammation, oxidative stress, urea, creatinine and other routine biochemical parameters, and also the adequacy of dialysis were stable in both groups.

**Conclusion:** Oral treatment with amino acid ketoanalogs in malnourished peritoneal dialysis patients is safe. It results in improved nutritional status, appetite and improves body composition by increasing lean body mass.

**Disclosure of Interest:** None declared.

**SUN-P177****THE RELATIONSHIP BETWEEN NUTRITIONAL STATUS AND POSTOPERATIVE COMPLICATIONS AFTER AORTIC VALVE REPLACEMENT DUE TO AORTIC STENOSIS IN ELDERLY PATIENTS**

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**Rationale:** Longer life expectancy is associated with the increase incidents of aortic stenosis and rising number of surgical treatment of this valve lesion. The aim of this study was the identification of factors related to nutritional status predisposing to the occurrence of postoperative complications after aortic valve replacement (AVR) surgery.

**Methods:** The nutritional status of 111 patients [74.1 ± 5.3 years, 43% of women, mean AVA (cm<sup>2</sup>) 0.778 ± 0.21] with AS was evaluated the day before AVR surgery. The questionnaire

method, anthropometrics measurements, body composition analysis and biochemical parameters were used for the assessment of nutritional status.

**Results:** Postoperative complications were observed in 51% (n = 57) of patients. The atrial fibrillation (25%), delirium (18%) were the most common incidents. In comparison with those, who did not develop complications, patients with postoperative incidents were older [73 (66-82) vs 76 (65-87) y. p = 0.0009], had poorer nutritional status according to f-MNA (25.3 ± 2.1 vs 23.6 ± 2.7 p = 0.003) and lower level of biochemical parameters such as prealbumin mg/dL (34 ± 7.6 vs 29.4 ± 8.2 p = 0.045), cholesterol mg/dL [146 (92-231) vs 118 (70-263), p = 0.038], triglycerides mg/dL [79.5 (35-923) vs 133 (33-417), p = 0.029]. Also, percent of ejection fraction was lower and a number of taken medications was higher. Differences in the Charlson Comorbidity Index were not observed. The occurrence of complications positively correlated with age and negatively with the results of full-MNA, scale and 7-SGA scale and with the level of prealbumin (mg/dL), cholesterol (mg/dL), triglycerides (mg/dL).

**Conclusion:** Poor nutritional status in elderly with AS before AVR is related to the occurrence of postoperative complications. In this group of patients, nutritional support before AVR may be considered, although further studies are needed.

**Disclosure of Interest:** None declared.

**SUN-P178****ORAL SUPPLEMENTATION WITH THE OMEGA-3 DOCOSAHEXAENOIC ACID (DHA) IN PATIENTS WITH AMYOTROPHIC LATERAL SCLEROSIS (ALS): A RANDOMIZED, DOUBLE-BLIND, PLACEBO-CONTROLLED PILOT STUDY**

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**Rationale:** Patients with ALS have progressive muscle atrophy with high levels of circulating inflammatory markers and altered lipidic profile. The anti-inflammatory activity of DHA and their contribution to the normal function of the nervous system is expected to have a positive effect on ALS patients.

**Methods:** To evaluate the possible benefits of DHA on ALS patients an oral supplementation of 1 g of DHA (+vit E) was given to a group of 14 patients, while another similar group received 1g of olive oil as a placebo. The supplementation was for 1 year. Blood samples of two groups were collected every 3 months to evaluate levels of cholesterol fractions, triglycerides and inflammatory biomarkers. Besides this, weight loss pre-diagnosis, ALS Functional Rate Scale (ALSFERS) and Forced Vital Capacity (FVC) as clinical parameters were recorded.

**Results:** 28 ALS patients were included but only 16 completed the follow up. No significant differences between **treatment/ placebo** group were found on demographic characteristics at baseline: weight loss pre-diagnosis, diagnostic delay (median 250/300 days), gender (57/71% male), onset site (86/64% limb) and age (53/58 years). Evolution of study variables in 1 year was: no changes for Triglycerides and HDL cholesterol. FVC

-11/-11, ALSFRS -12.5/-4.5 points, LDL cholesterol -0.260/0.035, TNF alfa -0.570/1.59 meaning lower levels in the treated group than in placebo group ( $p = 0.022$ ) at 1 year.

**Conclusion:** A clinical improvement in the treated group cannot be concluded due to the small size of the sample (a limitation of the study). TNF alfa levels differences are only weakly significant. Lack of change in lipidic profile could be disguised as the expected evolution of the disease. Further studies with an increased number of ALS patients would be necessary to confirm this anti-inflammatory activity.

**Disclosure of Interest:** None declared.

#### SUN-P179

##### NUTRITIONAL ASSESSMENT IN PATIENTS AFFECTED BY MITOCHONDRIAL CYTOPATHY (NAMITO STUDY)

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**Rationale:** Patients suffering mitochondrial cytopathy (MC) are at high risk for malnutrition and often suffer from gastrointestinal symptoms (e.g. dysphagia, dysmotility). It considerably influences nutritional intake and therefore deteriorates nutritional state. Literature in this regard is very sparse. Aim of this study was to evaluate a simple screening tool for protein energy malnutrition (PEM) and conduct extended nutritional assessment to explore potential presence of PEM in patients with MC compared to controls.

**Methods:** Prospective cohort study comparing outpatients with MC to matched healthy controls. Nutritional screening (NRS-2002) and full nutritional assessment were conducted, including quantitative and qualitative dietary habits (food recall protocol), body composition (bioimpedance analysis, anthropometrics), rest energy expenditure (indirect calorimetry) and quality of life (QoL; SF36v2) measurements. Blood and 24-hours urine analysis were done in the patients' group.

**Results:** Twenty-six patients were included: 11 in the patients' group and 15 in the control group. No patient was screened at high risk for malnutrition according to the NRS-2002. Nutritional assessment showed that patients had inadequate energy intake and significantly lower protein intake. Nitrogen balance and creatinine height index showed pathologic values. Body composition and function were altered as well as QoL.

**Conclusion:** According to detailed nutritional assessment and ESPEN guidelines<sup>1</sup>, all patients were malnourished. Thus, NRS-2002 appears to be too less sensitive for outclinic chronic ill patients. There is a rationale to increase protein intake and adapt energy supply to improve symptoms and QoL. Further studies should investigate potential positive influence of dietary management on disease's course.

##### References

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#### SUN-P180

##### "LA DESCULTURIZACIÓN": PERCEPTIONS ON TRADITIONAL DIET AND NUTRITIONAL TRANSITION AMONG INDIGENOUS COMMUNITIES OF ECUADOR

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**Rationale:** Nutrition transition refers to the global shift from traditional, nutrient-dense foods to nutrient-poor, high-fat foods. Chronic disease risk is further elevated by sedentary lifestyles. Few studies have examined the nutrition transition among indigenous communities in Ecuador despite the national growing rates of overweight (40% men, 50% women) and obesity (6% men, 16% women)<sup>1</sup>. Understanding dietary behavior -within its cultural context- and its relationship to nutritional transition -within its socioeconomic context- is a crucial step for informing evidence-based interventions.

**Methods:** A qualitative study was conducted to explore nutritional transition among Indigenous communities in the province of Imbabura, Ecuador. A total of eight focus groups (n = 55) were conducted. Focus group questions explored perceptions of diet and nutrition. Data was analyzed using grounded theory.

**Results:** A central role of diet in cultural identity among these communities was reported. Additionally, changing trends in household dietary behaviors were observed due to diurnal/daily parental absenteeism as a result of employment opportunities. Grandparents had difficulty feeding children with healthy foods at home while children were instructed to consume "mestizo" food in schools. Participants were concerned about "desculturización" - a loss of their traditions and identity- in the face of the increased popularity of "mestizo"/fast foods that were replacing traditional staples (quinoa, favas, amaranth).

**Conclusion:** Economic needs, urban employment and institutionalized education may have impacted household diets, resulting in increased intake of nutrient poor, fatty fast foods. The implications of nutritional transition and cultural identity and its comparison with other Latin-American indigenous communities will be discussed.

##### References:

- 1.

**Disclosure of Interest:** None declared.

#### SUN-P181

##### URINARY SODIUM EXCRETION AMONG ECUADORIAN ADULT POPULATION: A CROSS-SECTIONAL STUDY

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**Rationale:** It is well known that high dietary sodium intake is associated with cardiovascular disease (CVD) through a