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LB-094

THE EFFECT OF AGE AND BODY MASS INDEX ON VITAMIN D LEVEL IN MILD ASTHMATIC CHILDREN ATTENDING PULMONARY CLINIC IN RIYADH

I.A. Bindayel*. *Department of Community Health Sciences, College of Applied Medical Sciences, KING SAUD UNIVERSITY, Riyadh, Saudi Arabia*

Rationale: Literature suggest an increase in vitamin D deficiency in children(1). This is of particular concern especially to asthmatic young patients(2). The development of vitamin D deficiency is related to several factors including sun exposure, diet, age and weight. The aim of this study was to assess the level of 25(OH)D3 in children with mild asthma, and correlate its level with age, gender, weight and body mass index.

Methods: 25(OH)D3 level was assessed in 61 asthmatic children (2-17 years) registered in a pulmonary clinic in Riyadh, Saudi Arabia. A structured questionnaire was distributed and completed by the children or their legal guardians. It included information on children's current dietary habits, sun exposure, sociodemographic level. Anthropometric data collected included weight, height and BMI.

Results: 72% (n=44) of children had a 25(OH)D3 level of below 75 nmol/L, of which 47.5% (n=29) had a level of below 50 nmol/L. 25(OH)D3 level was significantly negatively correlated with age ($P<0.02$) and weight ($P<0.05$). children with a 25(OH)D3 level of below 75 nmol/L had a significantly higher body mass index ($P<0.05$). There was no significant effect of gender on 25(OH)D3 level. In addition, there was no significant difference among children in dietary habits, sun exposure or other demographic variables.

Conclusion: The number of asthmatic children with vitamin D level of below sufficiency is alarming. Older and overweight asthmatic children are at higher risk of developing insufficient vitamin D level.

References: 1- ALSUWAIDA, A. O., FARAG, Y. M., AL SAYYARI, A. A., MOUSA, D. H., ALHEJAILI, F. F., AL-HARIB, A. S., HOUSAWI, A. A., MITTAL, B. V. & SINGH, A. K. 2013. Prevalence of vitamin D deficiency in Saudi adults. *Saudi medical journal*, 34, 814-818.

2-ALDUBI, H. M., ALISSA, E. M., KAMFAR, H. Z., GABER, O. & MARZOUKI, Z. M. 2015. Bronchial asthma and hypovitaminosis D in Saudi children. *Asia Pacific Allergy*, 5, 103.

Disclosure of Interest: None declared

LB-095

KNOWLEDGE AND PRACTICES OF PHYSICIANS REGARDING VITAMIN D DEFICIENCY IN ADULTS

A. Aoun*¹, T. Karimeh¹, C. Obeid¹, S. El Hayek², N. El Gerger¹. ¹NOTRE DAME UNIVERSITY - LOUAIZE, Zouk Mosbeh, Lebanon; ²University of Kansas-Medical Center, KS, United States

Rationale: Vitamin D (VitD) is one of the most tested and supplemented vitamins due to the high prevalence and complications of deficiency worldwide. This observational cross-sectional study evaluated the knowledge and practices of VitD measurement and supplementation among physicians in North Lebanon.

Methods: A convenience sample of physicians, working at hospitals and private clinics in North Lebanon, was recruited during February and March 2016. Data was collected from a face-to-face interview performed by a trained local dietician. A total of 270 physicians (231 men and 39 women) were included in the study. Bivariate analyses were performed using the dosage of VitD in blood before prescribing VitD as the dependent variable, and all variables that might be related to VitD measurement were set as the independent variables.

Results: One quarter of physicians prescribed supplements without measuring VitD levels. Most of the physicians did not search for medical contraindications (78.1%) and adverse effects (94.1%) of supplementation, and believed (90%) that VitD supplements were over-prescribed. Two thirds did not know the approximate cost of the test and supplementation. Bivariate analyses revealed that medical specialty, knowledge about food rich in VitD and about the cost of supplementation, search for contraindications, prescription of specific dose, posology and duration of supplementation were correlated with VitD testing before supplementation.

Conclusion: Apparent confusion among physicians emphasizes the need for clear guidelines universally.

References: No References

Disclosure of Interest: None declared

LB-096

PREVALENCE OF VITAMIN D DEFICIENCY AND ITS ASSOCIATION WITH A POSITIVE SCREEN FOR EATING DISORDERS

M. Saade, J. El Hayek, J. Bou Mosleh, A. Aoun*. *NOTRE DAME UNIVERSITY - LOUAIZE, Zouk Mosbeh, Lebanon*

Rationale: Vitamin D deficiency is currently among the most prevalent vitamins deficiency worldwide. Contradictory results are observed when studying the prevalence of vitamin D deficiency among people with Eating Disorders (ED). The objective of our study was to assess the prevalence of vitamin D deficiency and its correlation with a positive screen for ED among Notre Dame University (NDU) employees.

Methods: A cross-sectional study was performed among 270 NDU employees working at the Main, North and Shouf campuses. Face to face interviews were used to collect sociodemographic, health and lifestyle data. SCOFF questionnaire was used as a screening tool for ED. Moreover, anthropometric and biochemical measurements were assessed including vitamin D status measured as 25(OH)D levels using ELISA and defined by the American Endocrine Society as: deficient (≤ 20 ng/ml), insufficient ($>20-30$ ng/ml) and optimal (>30 ng/ml).

Results: The prevalence rate of vitamin D deficiency among participants was 38.1%. The results of bivariate analysis showed no significant association between vitamin D intake, daily exposure to sunlight, use of sunscreen, physical activity level, vitamin D status and positive screening for ED.

Conclusion: A positive screening for ED was not significantly associated with vitamin D deficiency in our sample of NDU employees. Further studies are needed to understand the relation between ED and vitamin D status.

References: No References

Disclosure of Interest: None declared.

LB-097

DIETARY SUPPLEMENTS USED BY ATHLETES DURING THE CORONAVIRUS DISEASE 2019 (COVID-19)

M.-R.G. Silva*^{1,2,3,4}, H.-H. Silva^{5,6,7}, T. Paiva^{3,8}. ¹Faculty of Health Sciences, University Fernando Pessoa, 4200-150, Porto, Portugal; ²CIAS-Research Centre for Anthropology and Health – Human Biology, Health and Society, University of Coimbra, 3000-456 Coimbra, Portugal; ³CHRC-Comprehensive Health Research Centre – Sleep, Chronobiology and Sleep Disorders, Nova Medical School, Nova University of Lisbon, Portugal; ⁴Gymnastics Federation of Portugal, Lisbon, Portugal; ⁵ICBAS-Institute of Biomedical Sciences of the University of Porto, 4050-313, Porto, Portugal; ⁶Portuguese Ministry of Education, Lisbon, Portugal; ⁷União Desportiva Oliveirense – Senior rink-hockey team, Oliveira de Azeméis, Portugal; ⁸CENC, Sleep Medicine Center, Lisbon, Portugal

Rationale: The COVID-19 pandemic has had devastating effects on populations worldwide, leading to significant restrictions on athletic population. Consequently, athletes' routines, namely training sessions have changed and competitions were mainly postponed, which have negatively affected daily eating behaviours, including supplementation. Therefore, this study aimed at evaluating the consumption of dietary supplements (DS) by Portuguese athletes during the Coronavirus Disease 2019.

Methods: Eighty-nine Portuguese athletes (22.1±3.2years old) of high performance level (16.7±6.3hours/week) volunteered to complete a questionnaire regarding the use of DS during the time of COVID-19. An adaptation of a Portuguese validated questionnaire was used to assess DS intakes and sources of supplement information in addition to socio-demographic and training data. The significance level was 5% ($P<0.05$).

Results: The three major reasons for using DS were improving sports performance (46.2%), accelerating recovery (32.6%) and staying healthy (29.7%). The mean number of DS used per athlete was 3.8±2.4, ranging

from 0 to 10. A total of 309 products were consumed from which 73.0% were the nine most used. The most popular DS was sport drink (72.3%), followed by multivitamins (68.6%), protein (68.2%) and creatine (65.1%). In the athlete-gender analysis, significant differences were observed for all DS ($P < 0.05$). The most used by female athletes was sport drink (23.0%), which was also most used by males in higher amounts (68.6%). When the source of information was the nutritionist, the use of sport drink and protein was more prevalent. Although the majority of DS users (62.8%) was sufficiently informed about the use of DS, more than one third of users were not (31.9%).

Conclusion: Athletes need appropriate guidance for the correct use of DS in order to promote a healthy training regime and to insure an adequate recovery, especially during this pandemic time.

References: None.

Disclosure of Interest: None declared

LB-098

COMPARISON OF MODIFIED NUTRIC SCORE, APACHE II AND SOFA TO PREDICT IN-PATIENT MORTALITY IN CRITICAL ILL PATIENT

N.C. Del Castillo¹, E. Mejia², G. Duran³, J.A. García³, R. Guerrero². ¹Internal Medicine, Mexico; ²Critical Care, INSTITUTO MEXICANO DEL SEGURO SOCIAL, Hermosillo, Mexico; ³Critical Care, INSTITUTO MEXICANO DEL SEGURO SOCIAL, Guadalajara, Mexico

Rationale: The modified NUTRIC Score (mNUTRIC Score) is a tool specifically for intensive care unit (ICU), their use in qualifying critically ill patients have been demonstrated. Patients with malnourished have more risk of morbidity and mortality. The present study was a prospective evaluation of the accuracy of modified NUTRIC scores, APACHE II and SOFA in predicting in-patient mortality in critically ill patients.

Methods: A prospective cohort study on the intensive care unit (ICU) with patients from various etiologies and less than three days of stay before admittance in ICU. The patients was assessed with modified NUTRIC Score, APACHE Score and SOFA at 24 hours of admission to the ICU following up until their exit from the unit. The differences between mNUTRIC Score, APACHE II and SOFA with mortality were analyzed with SPSS version 25.0 and area under the receiver operating characteristic (ROC) curve with MedCalc Version 19.3.

Results: A total of 161 cases were assessed, 59.5% men, with medium age of 42 ± 17 years, BMI 28 ± 5.7 kg/m². We performed a comparison of the mNUTRIC Score, APACHE II and SOFA according to mortality. APACHE II 14.9 ± 6.6 vs 24 ± 2.11 ($p < 0.001$), SOFA 6.66 ± 3.5 vs 10.23 ± 3.5 ($p < 0.001$), mNUTRIC Score 5.2 ± 1.7 vs 3 ± 1.7 ($p < 0.001$). The ROC curves of the three scores were compared APACHE II 0.815 (CI 95% 0.693–0.937, $p < 0.001$) sensitivity (sen) 76.9, specificity (spe) 75.7 criterion > 19 , SOFA 0.756 (CI 95% 0.633–0.878, $p = 0.002$) sen 92.31, spe 52.03 criterion > 6 , mNUTRIC Score 0.819 (CI 95% 0.712–0.927, $p < 0.001$) sen 84.62, spe 65.54 criterion > 3 .

Conclusion: In this study, we found that 6 points or more on SOFA have a better sensibility and specificity to predict mortality in critically ill patients than modified NUTRIC Score and APACHE II.

References: (1) Jeong DH, Hong SB, Lim CM, Koh Y, Seo J, Kim Y, et al. Comparison of accuracy of NUTRIC and modified NUTRIC scores in predicting 28-day mortality in patients with sepsis: A single center retrospective study. *Nutrients*. 2018;10(7). (2) Al-Kalaldehy M, Suleiman K, Al-Kalaldehy O. Prognostic Performance of NUTRIC Score in Quantifying Malnutrition Risk in the Critically Ill in Congruence With the Bioelectrical Impedance Analysis. *Nutr Clin Pract*. 2019;0(0):0–7.

Disclosure of Interest: None declared.

LB-099

BENEFICIAL EFFECTS OF AN 8-WEEK ENTERAL IMMUNONUTRITION SUPPLEMENTATION ON ADULT ARAB PATIENTS WITH PRESSURE ULCERS

D.A. Alkhawtani¹, M.M. Elshafie², D.A. Al-Disi², A.H. Albinmoussa³, M.M. Abulmeaty⁴, H.I. AlHodaib⁴. ¹Clinical Dietitian, Prince Sultan Military Medical City, Saudi Arabia; ²Community Health Sciences., College of

Applied Medical Sciences, King Saud University, Saudi Arabia; ³consultant transplant hepatologist, King Faisal Specialist Hospital & Research center, Saudi Arabia; ⁴Community Health Sciences., King Saud University, Riyadh, Saudi Arabia

Rationale: Pressure ulcers (PUs) is common among critically ill patients and associated with high morbidity and mortality. It is affecting approximately 3 million adults with a higher prevalence rate (38%) noted among hospitalized patients aged 55 years.(1)

Methods: In this interventional study, a total of 104 adult patients with PUs were recruited from 2016 to 2017 in the Prince Sultan Military Medical City, Riyadh, Saudi Arabia. The study included 52 patients treated with enteral feeding (EF) supplemented with high protein immune modulating formula (ArgiMent AT daily) were compared to 52 patients who received EF without immune modulating formula for 8 weeks. Anthropometric measurements, laboratory tests and PUs assessment were obtained at baseline and weekly base over duration for 8 weeks.

Results: Supplementation of TF with high protein immune modulating formula resulted in significant reductions in the mean size and infection rates of PUs overtime compared to the control group (CG). Two thirds of the patients in the treatment group (TG) achieved healing of PUs compared to CG ($p < 0.01$).

Table 1: Infection rate (%) overtime.

Week	TGN = 52	CG(N = 52)	P-value
1	33	37	0.24
2	34	38	0.30
3	32	37	0.04
4	27	37	0.005*
7	9	37	0.001*
8	9	37	0.001*

Conclusion: The results of this study supported the positive effects of enteral feeding supplemented with high protein immune modulating formula in enhancing PU healing.

References: Al-Dorzi, H. M. (2017) Pressure ulcers in critically ill patients in Saudi Arabia: An opportunity for collaborative research on an ugly disease. *Saudi Critical Care Journal*, 1(6), 14–16.

Disclosure of Interest: None declared.

LB-100

MODIFIED NUTRIC SCORE AND MORTALITY RISK IN CRITICALLY ILL PATIENTS

N.C. Del Castillo¹, E. Mejia², G. Duran³, J.A. García³, R. Guerrero². ¹Internal Medicine, Mexico; ²Critical Care, INSTITUTO MEXICANO DEL SEGURO SOCIAL, Hermosillo, Mexico; ³Critical Care, INSTITUTO MEXICANO DEL SEGURO SOCIAL, Guadalajara, Mexico

Rationale: The assessment of nutritional status in critically ill patients is difficult, the modified NUTRIC (Nutrition Risk Critically Ill) Score scale is favorable for these cases. Nutritional status is a determining factor in prognosis and affects mortality. Our aim was to determine the association of the modified NUTRIC Score value with mortality.

Methods: Prospective cohort, in the Intensive Care Unit (ICU), the nutritional status evaluation was carried out with the modified NUTRIC Score 24 hours after admission to the ICU, following up until discharge from the unit. The association between nutritional status and mortality was carried out with the statistical package SPSS version 25.0 for Windows.

Results: 168 cases were analyzed, 59.5% men, age of 42.1 ± 17 years, modified NUTRIC Score of 3.2 ± 1.78 , with difference in the group of non-survivors (3.0 ± 1.6 vs 5.2 ± 1.6 , $p < 0.001$). NUTRIC Score modified greater than 3 points OR 11.41 (95% CI 1.45–89.41, $p = 0.004$), greater than 4 points OR 11.11 (95% CI 2.38–51.47, $p < 0.001$), greater than 5 points OR 10.77 (CI 95