

³ Nephrology Department of the Dialysis Unit Carregado

⁴ Faculty of Medical Sciences of the Nova Medical School

INTRODUCTION AND OBJECTIVES: Hyperparathyroidism is a common complication in patients undergoing maintenance hemodialysis (HD). Despite there being little evidence about the relationship between intact parathyroid hormone (iPTH) levels and nutritional status, the intervention frequently focusses on appropriate management of mineral and bone markers. This study aimed to investigate the association between iPTH, serum phosphorus and dietary intake.

METHODOLOGY: This was a cross-sectional, multicenter, observational study with 561 HD patients. Clinical parameters, body composition and dietary intake were assessed. Patients were divided into 3 groups: iPTH<130; iPTH 130-585; iPTH >585 pg/mL. The association between PTH, serum phosphorus and dietary intake was analyzed with linear regression models. A p-value <0.05 was considered statistically significant.

RESULTS: Patients' mean age was 68±14 years, median HD vintage was 65 (IQR: 43-106) months and 58.8% were men. 59.3% and 23.2% of all patients presented an iPTH between 130-585 pg/mL and >585 pg/mL, respectively. Patients with higher iPTH levels had higher HD vintage (p=0.021) and lower age (p=0.002); higher serum phosphorus (p=0.005), calcium (p=0.027), Ca/P product (p<0.001), albumin (p=0.016) and caffeine intake (p=0.009). Moreover, a lower dietary intake of phosphorus (p=0.044), fiber (p=0.047), riboflavin (p=0.031) and folate (p=0.011) were observed in patients with higher iPTH levels. Higher serum phosphorus predicted higher iPTH levels, even in the adjusted model (p=0.019). However, when adjusted to age, gender, serum phosphorus, dialysis adequacy and dialysis vintage, a lower phosphorus intake was a predictor of higher iPTH levels (p=0.035). The same result was observed when considering dietary fiber intake in the model (p=0.048). No significant differences in body composition parameters were observed.

CONCLUSIONS: Despite higher serum phosphorus being observed in patients with Hyperparathyroidism, lower dietary intakes of phosphate and fiber predicted higher iPTH values. Moreover, a poorer dietary intake, considering riboflavin and folate was observed in the HPTH group.

CO9. NUTRITIONAL AND DIETARY INTERVENTION IN THE EVOLUTION OF NUTRITIONAL STATUS AND FRAILTY IN TWO UNITS OF THE NATIONAL NETWORK OF INTEGRATED CONTINUED CARE

Maria João Dias de Castro¹; Bruno Oliveira^{2,3}; Cláudia Afonso^{2,4,5}

¹ Nutrition Service of Clínica de Saúde Taipas Termal

² Faculdade de Ciências da Nutrição e Alimentação da Universidade do Porto

³ LIAAD-INESC TEC

⁴ EPIUnit – Instituto de Saúde Pública da Universidade do Porto

⁵ Laboratório para a Investigação Integrativa e Translacional em Saúde Populacional

INTRODUCTION: Malnutrition is a prevalent issue among the elderly worldwide, with about 25% of individuals at risk or already affected by it. In aging, malnutrition is associated with several conditions, including frailty. Frailty is primarily linked to the inflammatory process associated with ageing, chronic medical conditions, and their interaction with the environment.

OBJECTIVES: Assess the nutritional status and presence of frailty in elderly patients upon admission and discharge. Evaluate their progress throughout their hospital stay and relate it to any nutritional interventions.

METHODOLOGY: This cross-sectional study involved 61 inpatients over the age of 60. Clinical and social data were collected through interviews within 72 hours of admission and monthly until discharge, between January and July 2023. Nutritional status was assessed using the Mini Nutritional Assessment (MNA), and frailty was evaluated using the five criteria of Fried's Frailty. A multidisciplinary

intervention and nutrition therapy were implemented, including personalized diets and oral nutritional and modular supplementation when necessary.

RESULTS: The hospital stay varied: 29 days n= 61; 58 days n= 20; 87 days n= 12. The MNA mean at the admission was 16.0, with a positive progression of 3.3 and with a significant negative correlation between hospital stay and unit reference, at the 29th follow-up. The MNA score for patients who were offered nutritional supplementation, improved significantly (t(60) = - 5.33; p < 0.001). On admission, 93.4% of the participants were frail and it was found significant correlation with the hospital stay. Frailty on admission is related to worse nutritional status.

CONCLUSIONS: Upon admission, patients exhibit a high prevalence of both frailty and malnutrition. The MNA score on admission can be used to guide the nutrition intervention. Additionally, there is a positive correlation between the MNA and Frailty criteria, indicating a link between nutritional status and frailty syndrome.

CO10. DAILY USE OF OLIVE OIL IS ASSOCIATED WITH BETTER CARDIAC REVERSE REMODELING IN PREGNANT WOMEN

Juliana Morais^{1,3}; Ana Filipa Ferreira¹; Maria João Azevedo^{4,6}; Carlota Gonçalves^{1,6}; Adelino Leite-Moreira^{1,7}; Carla Ramalho^{4,8,9}; Conceição Calhau⁶; Benedita Sampaio-Maia^{4,5,10}; Inês Falcão-Pires¹

¹ Department of Surgery and Physiology, Faculty of Medicine of the University of Porto

² CINTESIS, Center for Health Technology and Services Research

³ Department of Functional Sciences, School of Health of the Polytechnic Institute of Porto

⁴ I3S - Instituto de Investigação e Inovação em Saúde da Universidade do Porto

⁵ INEB - Instituto Nacional de Engenharia Biomédica

⁶ Academic Center for Dentistry Amsterdam of the University of Amsterdam and Vrije Universiteit Amsterdam

⁷ NOVA Medical School | Faculdade de Ciências Médicas da Universidade NOVA de Lisboa

⁸ Cardiology Department of the Centro Hospitalar de São João

⁹ Obstetrics Center of Prenatal Diagnosis, Obstetrics Department of the São João Hospital

¹⁰ Gynaecology and Pediatrics Department, Faculty of Medicine of the University of Porto

¹¹ Faculdade de Medicina Dentária da Universidade do Porto

INTRODUCTION: During pregnancy, the left ventricle (LV) of women hypertrophies to increase cardiac output, thereby coping with the needs of the growing fetus. During postpartum, the heart should return to its pregestational morphology and size, a process called cardiac reserve remodeling (CRR). Very few studies explored the association of maternal diet with this physiological adaptation.

OBJECTIVES: The present study aimed to associate maternal diet with CRR.

METHODOLOGY: Pregnant women from the prospective birth cohort PERIMYR-OralBioBorn were recruited in Porto between 2019 and 2021. Cardiac mass regression was calculated as the percentage of variation of LV mass between 6 months postpartum and the third trimester and evaluated by transthoracic echocardiography. The daily consumption of olive oil during pregnancy was assessed by food frequency questionnaire. Multivariate linear regression was used to search for potential "predictors" of postpartum mass regression.

RESULTS: A total of 50 pregnant women with a mean ± SD age of 34.7 ± 5.3 years old were included in this study. In general, the LV mass regressed by 17.7%. No correlations were found between the percentage of CRR and pregestational weight, gestational weight gain, and postpartum weight retention. Regarding maternal diet, we found that women who consume daily olive oil during pregnancy had a higher percentage of CRR at 6 months after birth (crude OR [95% CI] = -9.70 [-18.6 - -0.8]; p=0.034). When adjusted for maternal age and gestational weight gain, the association maintains statistical significance (OR [95% CI] = -10.2 [-19.3 - -1.1]; p=0.029).