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with three times per week (TIW) Cinacalcet compared with conventional daily dosing.

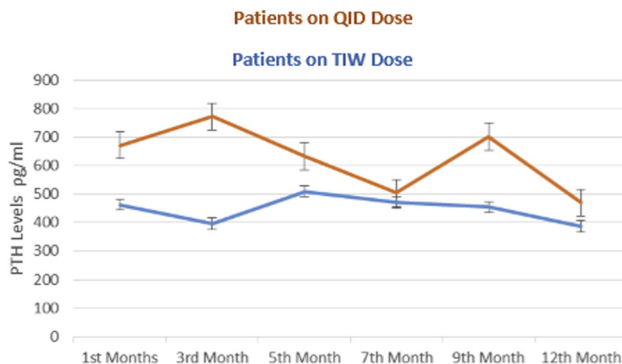
The objective of this longitudinal retrospective single-center observational study was to evaluate the effectiveness of three times a week (TIW) Cinacalcet dosing compared with conventional daily dosing (DD) in subsequent levels of Parathyroid Hormone (PTH) in hemodialysis patients.

Methods: All adult hemodialysis patients on Cinacalcet for secondary hyperparathyroidism (sHPT) for more than six months were selected. Patients who did not have any adherence issues continued oral Cinacalcet daily (QID) while patients who were suspected to be NA to Cinacalcet or suffered from intolerance were given oral Cinacalcet three times a week (TIW) on dialysis days under direct observation of the dialysis nurse.

The dose of Cinacalcet was determined by the physician to maintain PTH levels within 130 - 600 pg/ml as per KDIGO guidelines. PTH levels were monitored every other month and the dose was titrated accordingly. All these patients also received intravenous alfacalcidol and phosphate binders at the discretion of the physician to maintain adjusted calcium and phosphate levels within the KDIGO recommendations.

The primary endpoint of the study was to assess whether TIW dosing was more effective than QID dosing in terms of maintaining PTH levels within the KDIGO recommended range. Data regarding patients' acceptability, tolerability, hypocalcemia, and required weekly cumulative Cinacalcet dose were also collected. Patients were followed up for 12 months.

Results: There were 40 patients in the QID group and 52 in the TIW group. All participants in the TIW group reported acceptability and improved tolerability and hence better adherence to the dosing regimen. Some in the TIW model even reported perceived improvement in their commitment to adherence.



In terms of effectiveness, the TIW group showed better monthly PTH trends compared to the QID group as illustrated by the graph below. This appeared to be sustained over the 12 months follow up period. Concomitantly, the required cumulative dose of Cinacalcet per week was also much less in the TIW group (270 mg/week) compared to the QID group (420 mg/week) suggesting a significant healthcare cost saving in long run. While there were cases of hypocalcemia observed in the QID group no such events were noticed in the TIW group.

Conclusions: Taken together, the results of our study confirm that patients on the TID model of prescription were able to achieve and sustain the PTH levels consistent with KDIGO recommendation with much lower cumulative Cinacalcet dose with consequent lower healthcare costs. Nevertheless, we do agree that this alternative model of prescription (TIW) needs to be further validated in a prospective study before drawing stronger conclusions.

No conflict of interest

POS-792

OMEGA-3 ATTENUATES UREMIA-INDUCED BRAIN DAMAGE IN MICE

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Introduction: Although the cause of central nervous system (CNS) disorder in patients with CKD has not been completely identified yet, recent papers have attributed accumulated uremic toxin to be its main cause. Additionally, omega-3 polyunsaturated fatty acid (ω -3-PUFA) is abundant in the nervous system and plays an important role in maintaining normal nerve function. The objective of this study is to identify brain damage caused by uremic toxicity and determine the protective effects of ω -3 PUFA against uremic toxin.

Methods: We divided the mice into the following groups: wild-type (wt) sham (n = 8), ω -3 PUFA sham (n=8), Fat-1 sham (n = 8), ischemia-reperfusion (IR) (n = 20), and ω -3 PUFA+IR (n=20) Fat-1+IR (n = 20). Brain tissue, kidney tissue, and blood were collected three days after the operation of mice (sham and IR operation). We evaluated renal function and kidney histology of renal injury. To investigate neuronal cell death and how ω -3 PUFA affects brain injury, we evaluated brain histology and apoptotic protein expression.

Results: Ki67 and neuronal nuclei (NeuN) decreased in the brain of uremic mice as compared to wt mice brain. The protein expressions of Bax, cleaved caspase-3, and PARP were increased, whereas protein of Bcl2 decreased. Additionally, Ki67 and NeuN were increased in the ω -3 PUFA-treated uremic mice and the brain of uremic Fat-1 mice as compared to the brain of uremic mice. The protein expression of Bax, cleaved caspase-3, and PARP decreased, whereas the proteins of Bad and Bcl2 increased. Furthermore, the ω -3 PUFA-treated uremic mice and brain of uremic Fat-1 mice protein expression of p-PI3K, p-PDK1, and p-Akt were increased as compared to the brain of uremic mice. These results indicate that ω -3 PUFA show the protective effect in brain through PI(3)K-Akt signaling.

Conclusions: Uremic toxin damages the brain and causes cell death. ω -3 PUFA plays an important role in neuroprotection through PI(3)K-Akt signaling.

No conflict of interest

POS-793

UNDERGOING HEMODIALYSIS DURING COVID-19 LOCKDOWN: EXPLORING PATIENTS' AND FAMILY CAREGIVERS' EXPERIENCES

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Introduction: The new coronavirus brought multiple changes to people's lives, mainly due to the preventive measures that have been implemented around the world, such as confinement and social distance. Patients with end-stage renal disease (ESRD) cannot completely adhere to these recommendations, as most of them need in-center hemodialysis (IHD) to survive. Their family caregivers, who usually already show symptoms of burden due to the demands of this disease and its treatment, now may face new and additional challenges. However, little is known about how these patients and their caregivers are dealing with the outbreak. This study aimed to explore the lived experiences of non-COVID-19 patients undergoing IHD and their family caregivers during the lockdown.

Methods: A qualitative exploratory study was conducted with a purposive sample of 18 participants (9 patient/family caregiver dyads) during the COVID-19 lockdown in Portugal. Semi-structured separate interviews were conducted by telephone. Patients were on average 65.2 (\pm 13.4) years old and undergoing IHD for an average of 48.9 (\pm 45.1) months; their respective caregivers were on average 51.8 (\pm 19.1; 4 spouses) years old. The interviews were submitted to dyadic analysis by two independent researchers. The dyadic perspective was based on the analysis of contrasts and overlaps at the descriptive and interpretative level.

Results: Five major themes were identified: (i) emotional impacts (increased emotional distress - 3 dyads; fear that the patient gets infected due to being in a high-risk population - 3 dyads; fear that the patient gets contaminated in the dialysis unit - 5 dyads); (ii) personal growth (recognize more value to family, friendship and life - 2 dyads);

(iii) altered family dynamics (increase in caregiving tasks; patients' feelings of overprotection from caregivers – 3 dyads); (iv) educational and supportive needs (patients' need more information about the new coronavirus and safety measures, and caregivers' need improved communication with the dialysis team - 3 dyads); (v) coping strategies (adherence to the safety measures such as physical distancing, usage of masks, and disinfection – 5 dyads). All dyads overlapped in themes (i), (ii), and (v) and contrasted in themes (iii) and (iv), at both descriptive and interpretative levels.

Conclusions: The dyadic perspective shows that distress and fear of infection by the new coronavirus can be hazardous for family relational dynamics and routines. Family-based interventions should be developed to help mitigate these negative impacts while providing information and support during the COVID-19 outbreak.

Conflict of Interest: This work was financially supported by the project POCI-01-0145-FEDER-030228, funded by FEDER, through COMPETE2020 - Programa Operacional Competitividade e Internacionalização (POCI), and by national funds (OE), through FCT/MCTES.

POS-794

"HOPES & FEARS": OPPOSITE SIDES OF THE SAME COIN WHILE WAITING FOR RENAL TRANSPLANTATION?



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Introduction: End-stage renal disease (ESRD) is a complex condition that requires lifelong renal replacement therapy. Worldwide, hemodialysis is the most common treatment for this condition. However, it is highly demanding and involves a strict regime of attendance with patients performing 3-4 sessions a week, with each dialysis session lasting 4-5 hours. This often means a significant burden and distress for patients and family caregivers, who constantly need to readapt their personal, family, social and occupational lives to fit dialysis' demands. In this sense, renal transplantation is usually the most expected type of treatment, as it can provide significant health and quality of life improvements. However, there is limited understanding about the expectations of patients and family carers regarding a kidney transplant. This study aimed to explore the main hopes and concerns of patients and family caregivers about a kidney transplant while undergoing hemodialysis.

Methods: A qualitative exploratory study was conducted with a purposive sample recruited from two dialysis units. Semi-structured face-to-face interviews were conducted with 13 participants: 7 patients undergoing hemodialysis for an average of 28.7±26.6 months (5 males, 50.6±3.60 years old) and 6 unrelated family caregivers (5 female, 38.8±12.9 years old). The interviews were digitally audio-recorded, transcribed verbatim and submitted to content analysis by two independent researchers.

Results: Four themes were identified: (i) hope of returning to normal life (3 patients, 2 caregivers); (ii) hope of a "cure" for ESRD (2 patients, 2 caregivers); (iii) fear of transplant-related complications (2 patients, 1 caregiver); and (iv) fear of never getting a compatible kidney (3 patients, 1 caregiver).

Conclusions: Findings suggest that waiting for a kidney transplant is a dual subjective experience since feelings of hope and fear co-exist among patients and family caregivers. Recognizing ESRD as a family condition is crucial for the development of innovative family-based interventions that can promote knowledge to mitigate some transplant-related concerns and to adjust patients' and family caregivers' pre- and post-transplant expectations.

Conflict of interest Corporate sponsored research or other substantive relationships: This work was financially supported by the project POCI-01-0145-FEDER-030228, funded by FEDER, through COMPETE2020 - Programa Operacional Competitividade e Internacionalização (POCI), and by national funds (OE), through FCT/MCTES.

POS-795

"THE SECRET QUESTIONS IN A BOX": WHAT DO PATIENTS AND FAMILIES REALLY WANT TO KNOW ABOUT END-STAGE RENAL DISEASE?



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Introduction: End-stage renal disease (ESRD) is a complex condition that requires radical lifestyle changes, such as adherence to a complex regime of attendance to dialysis sessions, vascular access care, and fluid and diet management. Non-adherence to these recommendations remains a major concern, as it is related to patients' increased morbidity and early mortality. Health information is an important resource for patients and family caregivers to understand and manage ESRD. However, they may not be able to understand the information properly due to limited health literacy. Furthermore, excessive information might lead to confusion and powerlessness rather than empowerment. The need to improve health literacy in renal care settings should address patients' and families' own questions, in their own language terms. The purpose of this study was to explore the informational needs of patients and their family caregivers about ESRD and renal-replacement therapies (RRT).

Methods: A qualitative exploratory study was conducted with a purposive sample. For a week, 7 patients (64.3±12.4 years old) undergoing hemodialysis for an average of 40.6(±48.2) months and their family caregivers (49.4±15.3 years old), were encouraged to place anonymous questions into a box regarding what they would like to know about ESRD and renal replacement therapies. These questions were then submitted to content analysis by two independent researchers.

Results: 43 questions were placed into the box, resulting into 7 different categories. The most frequently asked questions were about (i) hemodialysis (15 questions related to online hemodiafiltration, skipping dialysis, dialysis success indicators, immunity during dialysis); (ii) renal transplantation (10 questions related to eligibility criteria, donor-receptor compatibility, implications of kidney donation, precautions after renal transplant, waiting lists); (iii) treatment-related symptoms (6 questions related to hypotension, fatigue, chest pain, itchy skin); (iv) end-stage renal disease etiology and prevention (4 questions); (v) psychosocial adjustment to the condition (4 questions related to its emotional consequences, coping skills, family support); (vi) advances in nephrological biomedicine (3 questions related to the bioartificial kidney and puncture before dialysis); and (vii) the performance of physical activity (1 question).

Conclusions: Findings suggest that, despite undergoing hemodialysis for more than 3 years, patients and their family caregivers still have several questions that could potentially interfere with treatment adherence, disease self-management, and psychosocial adjustment. Future health literacy interventions in the context of ESRD should follow a patient/family-oriented approach in close cooperation with health professionals from a multidisciplinary team.

Conflict of Interest: This work was financially supported by the project POCI-01-0145-FEDER-030228, funded by FEDER, through COMPETE2020 - Programa Operacional Competitividade e Internacionalização (POCI), and by national funds (OE), through FCT/MCTES.

POS-796

"MY PARENT HAS END-STAGE RENAL DISEASE": EXPLORING THE UNMET NEEDS OF ADULT CHILDREN CARING FOR THEIR PARENTS ON HEMODIALYSIS



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