Conclusions: In-center daytime extended-hours HD with liberalized dietary approach was associated with a lower risk of non-cardiovascular mortality than conventional HD. This relationship was also evident in subgroup of elderly patients aged over 70 years.

No conflict of interest

POS-600

TRENDS IN VASCULAR ACCESS TYPES IN HEMODIALYSIS PATIENTS IN GHANA

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Introduction: Usage and maintenance of an ideal Vascular Access (VA) is of optimum priority in hemodialysis patients. With data from the Komfo Anokye Teaching Hospital (KATH) nephrology clinic, a retrospective observational analysis was performed to evaluate the trends in vascular access types used for the different classes of hemodialysis patients in our country.

Methods: This cross-sectional retrospective analysis of hemodialysis participant records was conducted at the nephrology clinic of KATH in October 2020. The records of 80 hemodialysis participants were used for this study. Sociodemographic and clinical data were obtained, organized and analyzed with Statistical Package for the Social Sciences (SPSS).

Results: Of the 80 participants enrolled, 65% were males, over 50% were aged ≥45 years and 87.8% were married. Majority (59.2%) of the participants were rural dwellers with 32.5% being traders and 27.5% unemployed. End Stage Renal Disease (ESRD) was the most prevalent (65%) condition at diagnosis followed by acute on Chronic Kidney Disease (CKD) (28.8%) and Acute Kidney Injury (AKI) (5.1%). Of the 35.5% who had been on dialysis for less than 3 months, 85.2% had Temporary Vascular Access (TVA) and 14.8% had Tunneled Venous Access (TUV). Whereas, of the 32.9% who had been on dialysis for over a year, 12% had TVA, 52% had Arteriovenous Fistula (AVF) and 36% had TUV. The dominant VA type was TVA (76.9%) in rural dwellers and AVF (80.0%) in urban dwellers with the internal jugular vein being the dominant (80.5%) site for catheterization. All AKI and majority of AKI/CKD participants (73.9%) had TVA. Most (40.3%) of the ESRD patients also had TVA. Although there was no significant association between sociodemographic data and type of VA used, we found a significant association between diagnosis as well as duration of dialysis and type of VA used.

Conclusions: The number of chronic hemodialysis participants who had temporary vascular access was significantly higher than those with permanent vascular access, contrary to the general worldwide recommendations and are thereby at risk of complications associated with prolonged usage of temporary venous access.

No conflict of interest

POS-602

TETRASODIUM EDTA REDUCES ALTEPLASE USE IN PATIENTS WITH DYSFUNCTIONAL HEMODIALYSIS CATHETERS

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Introduction: Catheter dysfunction is a frequent complication of hemodialysis which impacts treatment adequacy and patients’ quality of life. Standard lock solutions for hemodialysis catheters such as heparin or sodium citrate often fail to prevent access dysfunction, and alteplase has to be used to restore or maintain catheter patency. EDTA tetrasodium 4% is a new lock solution with antimicrobial and anticoagulant properties. The goal of this retrospective study is to evaluate the impact of tetrasodium EDTA 4% on alteplase use and catheter function.

Methods: Chronic in-center hemodialysis patients with a dysfunctional hemodialysis catheter who were switched from sodium citrate 4% to tetrasodium EDTA 4% were included. Data regarding alteplase use, blood flow, arterial and venous pressure, line reversal, weekly kt/V and serum electrolytes were compared before and after the change of lock solution.

Results: Twenty-two patients were studied. Alteplase use decreased from 3.88 ± 1.41 sessions/month while using sodium citrate to 1.59 ± 1.25 sessions/month after changing to tetrasodium EDTA (paired t-test, 3 months pre- vs post-intervention, p < 0.0001). Mixed effect model analysis showed a mean reduction of alteplase use of 1.68%±1.2% [-2.32, -1.04] after changing the lock solution, and a continued reduction over time of -0.23/month, 95%CI [-0.37, -0.14]. A slight reduction in blood flow was observed 329 ± 21 ml/min vs 320 ± 26 ml/min (p < 0.05). There was no statistical difference for line reversal, venous pressure, arterial pressure, kt/V, serum sodium, potassium, calcium and magnesium.

Conclusions: In a group of chronic in-center hemodialysis patients with a dysfunctional catheter, the conversion from a citrate sodium 4% to a tetrasodium EDTA 4% lock solution led to a significant reduction in the use of alteplase.

No conflict of interest

POS-601

QUALITY OF LIFE AND CLINICAL OUTCOMES OF HEMODIALYSIS PATIENTS IN A TERTIARY HOSPITAL IN METRO MANILA

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Introduction: The incidence of ESRD requiring dialysis has been increasing worldwide across age group and exerts a negative impact on patient’s quality of life. This study aimed to assess the quality of life and clinical outcomes in different age groups of hemodialysis patients in a tertiary hospital.

Methods: One hundred ten hemodialysis patients were included in this cross-sectional study. Subjects were classified based on the following age groups: young adult (20 to 40 years old), middle adult (41 to 64 years old), young old (65 to 74 years old), middle old (75 to 84 years old) and old-old (85 years old and above). Overall and quality of life scores per age group was assessed using the Kidney Disease Quality of Life questionnaire (KDQOL-SF23.1). Mean and median scores for individual domain, overall health, summary component scores namely - physical(PCS), mental(MCS) and kidney disease component scores (KDCS) were analyzed and compared to demographics and clinical data.

Results: The overall quality of life scores of hemodialysis patients were above average for overall health, mental component (MCS) and kidney disease component scores (KDCS) and borderline for physical component score (PCS). However, only overall health and MCS scores were statistically significant when compared per age group. Older adults (young old to old-old) had better quality of life compared to the young adults. Age, mode of treatment, type of vascular access, hemoglobin and phosphorus levels were found to have effects on at least one of the QOL scores. Hospitalization rate was not significantly different across age groups and did not affect the quality of life scores.

Conclusions: Young adults on hemodialysis had the highest quality of life based on KDQOL scores compared to their older counterparts. Component scores were noted to be improving almost directly proportional to age which could be attributed to age-related differences on disease perception and coping process.

No conflict of interest

POS-603

HEMODIALYSIS INDUCES TRANSIENT REDUCTIONS IN CEREBRAL BLOOD FLOW PULSATILITY AND REGIONAL ARTERIAL STIFFNESS

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Introduction: Catheter dysfunction is a frequent complication of hemodialysis which impacts treatment adequacy and patients’ quality of life. Standard lock solutions for hemodialysis catheters such as heparin or sodium citrate often fail to prevent access dysfunction, and alteplase has to be used to restore or maintain catheter patency. EDTA tetrasodium 4% is a new lock solution with antimicrobial and anticoagulant properties. The goal of this retrospective study is to evaluate the impact of tetrasodium EDTA 4% on alteplase use and catheter function.

Methods: Chronic in-center hemodialysis patients with a dysfunctional hemodialysis catheter who were switched from sodium citrate 4% to tetrasodium EDTA 4% were included. Data regarding alteplase use, blood flow, arterial and venous pressure, line reversal, weekly kt/V and serum electrolytes were compared before and after the change of lock solution.

Results: Twenty-two patients were studied. Alteplase use decreased from 3.88 ± 1.41 sessions/month while using sodium citrate to 1.59 ± 1.25 sessions/month after changing to tetrasodium EDTA (paired t-test, 3 months pre- vs post-intervention, p < 0.0001). Mixed effect model analysis showed a mean reduction of alteplase use of 1.68%±1.2% [-2.32, -1.04] after changing the lock solution, and a continued reduction over time of -0.23/month, 95%CI [-0.37, -0.14]. A slight reduction in blood flow was observed 329 ± 21 ml/min vs 320 ± 26 ml/min (p < 0.05). There was no statistical difference for line reversal, venous pressure, arterial pressure, kt/V, serum sodium, potassium, calcium and magnesium.

Conclusions: In a group of chronic in-center hemodialysis patients with a dysfunctional catheter, the conversion from a citrate sodium 4% to a tetrasodium EDTA 4% lock solution led to a significant reduction in the use of alteplase.

No conflict of interest