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Abstract Supplement

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KIDNEYWEEK 2017

New Orleans, LA • Oct 31 - Nov 5

Abstract Supplement

Abstract Publication
More than 4,400 abstracts are published in this supplement. Abstracts are arranged by the abstract type**, then by presentation date*, and then by chronological publication number. Abstracts with a "PUB" number will not be presented at the ASN Annual Meeting.

* TH = Thursday, FR = Friday, SA = Saturday
** OR = Oral, PO = Poster, PUB = Publication Only

The presenting author's name is underlined. For the poster sessions, the publication numbers and poster board numbers are the same.

Abstract Author Index
The Author Index lists all abstract authors in alphabetical order. To locate an abstract, first reference the abstract type (OR, PO, or PUB) and then the presentation day (TH, FR, or SA), and then the chronological publication number.

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Kidney Week Program and Presentations
The Kidney Week 2017 program, which can be found on the ASN website and in the Kidney Week mobile app, includes:

- Plenary Sessions
- Basic/Clinical Science Sessions
- Clinical Practice Sessions
- Translational Sessions
- Special Sessions
- Educational Symposia
- Oral Abstract Sessions
- Poster Sessions

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	Model 1	Model 2
Academic center	0.57 (0.42 – 0.78)	0.59 (0.43 – 0.80)
Female	1.32 (0.97 – 1.80)	1.31 (0.96 – 1.79)
Age (per 1-y)	0.97 (0.96 – 0.98)	0.97 (0.96 – 0.98)
White	0.69 (0.25 – 1.92)	0.64 (0.22 – 1.84)
Schizophrenia	3.16 (1.33 – 7.48)	3.08 (1.28 – 7.41)
CCI	1.01 (0.95 – 1.07)	1.00 (0.94 – 1.06)
BMI >= 30 kg/m2	0.88 (0.64 – 1.21)	0.92 (0.66 – 1.26)
Baseline Na < 135	0.57 (0.42 – 0.76)	0.59 (0.44 – 0.79)
K >5 mEq/L	1.75 (1.22 – 2.53)	1.84 (1.27 – 2.66)
K < 3.5 mEq/L	1.52 (1.06 – 2.16)	1.08 (0.73 – 1.61)
Albumin (per 1 mg/dL)	1.53 (1.22 – 1.90)	1.50 (1.20 – 1.87)
OP loop diuretic	0.49 (0.31 – 0.75)	0.48 (0.31 – 0.74)
OP thiazide diuretic	0.89 (0.46 – 1.71)	0.87 (0.45 – 1.68)
IP hypertonic saline		1.52 (0.99 – 2.33)
IP electrolyte repletion		1.88 (1.35 – 2.62)
IP tolvaptan		1.36 (0.43 – 4.30)
Abbreviations: CCI (charlson comorbidity index), BMI (body mass index), OP (outpatient), IP (inpatient)		

TH-PO1115

Treatment of dRTA with an Innovative Combination Product as Compared to Current Standards of Care Aurélia Bertholet-Thomas,[1] Catherine Guittet,[2] Maria A. Manso,[2] Luc andre Granier.[2] *[1]Centre de référence des maladies rénales rares, Bron, France; [2]Advicenne, Nîmes, France. Group/Team: B21CS study investigators.*

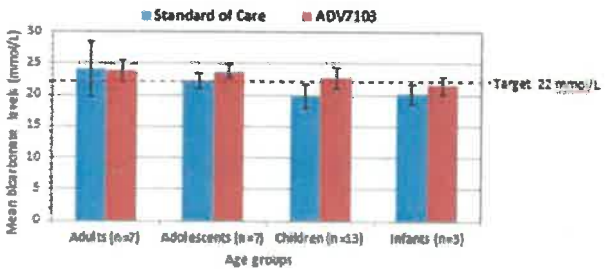
Background: Patients suffering from distal renal tubular acidosis (dRTA) require long-term treatment in order to restore and maintain physiological blood pH values. Products currently used as standards of care (SoC) require several daily administrations and are characterised by gastro-intestinal (GI) tolerability issues and bitter taste. A new innovative age-adaptable prolonged-release granule combination product (ADV7103), achieving adequate bicarbonataemia (blood bicarbonate ≥22 mM) with only two daily doses, together with improved tolerability and palatability, is proposed as an alternative. The objective of this work is to discuss the ability to restore bicarbonataemia with ADV7103 in comparison with SoC in dRTA patients.

Methods: A multicentre (N=13), open-label, non-inferiority, sequential study was performed. Adult and paediatric dRTA patients (N=37, 30 evaluable for bicarbonataemia) received their SoC and then ADV7103 at the most appropriate doses, both during 5-day periods. The alkali doses administered and the blood bicarbonate levels at steady state treatment conditions were compared. GI tolerability, palatability, easiness of administration and swallowing, were evaluated using visual analogue scales or 5-point facial hedonic scales.

Results: Blood bicarbonate levels were suboptimal in children and infants with the SoC and improved with two daily administrations of ADV7103. Less variability was observed with ADV7103 in adults and similar results were obtained with both treatments in adolescents. Improved GI tolerability, palatability and easiness of administration were observed in all age groups with ADV7103 compared to SoC. The improved ability to correct metabolic acidosis of ADV7103 was associated to the possibility of optimising dosing, while poor tolerability and acceptability appeared to limit further dosing increases with SoC.

Conclusions: ADV7103 is the first prolonged-release alcalinizing product improving bicarbonataemia control in dRTA patients compared with SoC, with less GI side effects and very good acceptability.

Funding: Commercial Support - Advicenne



TH-PO1116

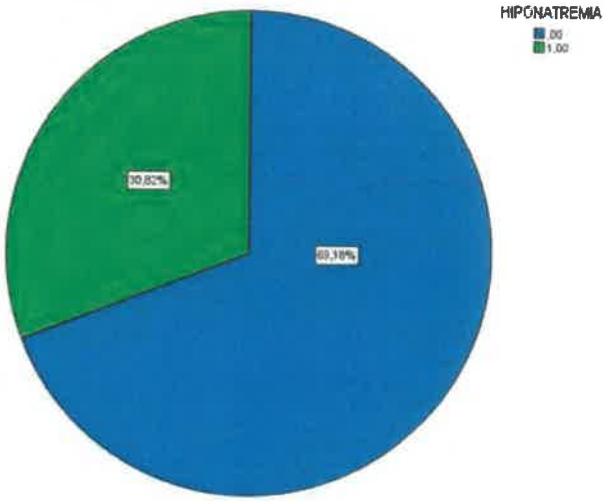
Prevalence of Hyponatremia in Dengue Infected Patients Daniel Caputo,[1] Armando L. Negri,[3] Juan Carlos Ayus,[4] Carlos Eghi,[2] Graciela E. Cabral,[2] Ydania Fernandez carreño.[2] *[1]Hospital Nacional Alejandro Posadas, El Palomar. Buenos Aires, Argentina; [2]Hospital Posadas, Buenos Aires, Argentina; [3]Instituto de Investigaciones Metabólicas, Buenos Aires, Argentina; [4]Renal Consultants of Houston, Houston, TX.*

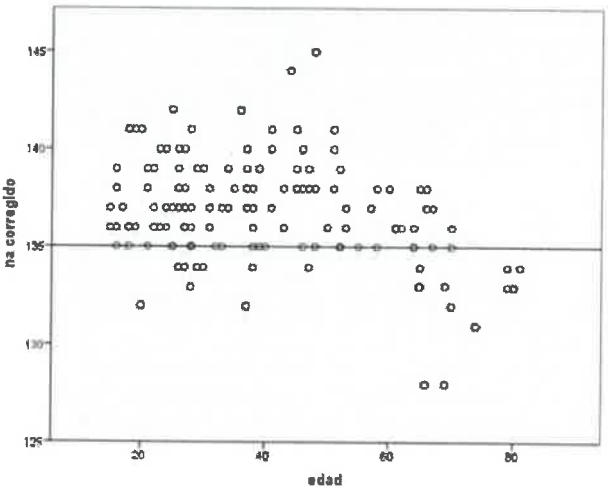
Background: PHO-WHO (Dengue guidelines 2016), and CDC recommended high water intake in patients with dengue. However, no information exists about the prevalence of hyponatremia in newly infected patients.

Methods: Cross-sectional study in patients with newly diagnosed dengue infection in Argentina from January 2016 to April 2016. Hyponatremia was defined as serum sodium concentration <=135 mEq/L. Natremia was corrected in patients with hyperglycemia. Patients with creatinine greater a 1,6 mg/dl were excluded.

Results: We evaluated 146 patients with dengue diagnosis confirmed by IgM serology or PCR. Hyponatremia was present in 30.8% of the patients **Figure 1**. In the multivariate logistic regression model, the OR of hiponatremia adjusting for age and sex was significant in the group of over 65 years; OR 9.2 (IC95 2.9-28.9) p= 0,001. **Figure 2**

Conclusions: The prevalence of hyponatremia in newly infected patients with dengue, especially in older patients is high. Electrolyte evaluation should be done at admission in all patients with dengue and routine use of hypotonic fluids should be avoided in these patients.





TH-PO1117

Safety and Efficacy of ADV7103, an Innovative Prolonged-Release Oral Alkalising Combination Product, after 6-Months of Treatment in Distal Renal Tubular Acidosis (dRTA) Patients Aurélia Bertholet-Thomas,[1] Catherine Guittet,[2] Maria A. Manso,[2] Luc andre Granier.[2] *[1]Centre de référence des maladies rénales rares, Bron, France; [2]Advicenne, Nîmes, France. Group/Team: B21CS study investigators.*

Background: A new innovative age-adapted prolonged-release granule combination of potassium citrate and potassium bicarbonate, ADV7103, has been developed in order

to achieve sustained physiological blood pH values in dRTA patients with a simplified dosing regimen. The current standards of care (SoC) require multiple administrations and are not always well tolerated. The objective of this clinical study was to assess safety of ADV7103 after treatment for 6 months as well as to follow-up bicarbonate levels and evaluate patient's satisfaction.

Methods: Adult and pediatric dRTA patients (N=30) were included in a multicentre (N=12), open-label, 24-month study. They received ADV7103 twice a day at appropriate doses. Preliminary data after 6 months of treatment were analysed, including adverse events and bicarbonataemia. Improvement of quality of life was evaluated at by patients and/or their parents using a 100-mm visual analogue scale.

Results: A total of 17 patients presented adverse events. Among the 45 adverse events observed, 40 were unrelated, 1 (abdominal pain) was unlikely related, 3 (alopecia, dyspepsia and abdominal pain) were possibly related, and 1 (diarrhea) was probably related to the treatment. The 5 latter adverse events were all of mild intensity. There was only one serious adverse event unrelated to the product (wisdom teeth removal). Efficacy was maintained after 6 months treatment, with blood bicarbonate levels above 21 mM in 79% of the patients. Only three patients presented bicarbonatemia levels below 20 mM. ADV7103 doses ranged from 1.3 to 7.2 mEq/kg/day. Patients and/or their parents were extremely satisfied with ADV7103. The change of alkalising treatment from the their SoC to ADV7103 allowed an average improvement of their quality of life of 80.5%, ranging from 76 to 98% depending of the age group considered.

Conclusions: The present preliminary results confirm the excellent safety and efficacy of ADV7103, a combination product allowing treatment with only 2-daily doses. The level of satisfaction of the patients is very high and clinicians are expecting registration of the product for first-line treatment of dRTA.

Funding: Private Foundation Support

TH-PO1118

Prognostic Factors in Sepsis Patients Who Have Undergone Direct Hemoperfusion with Polymyxin B-Immobilized Fibers Aiko Okubo, Ayumu Nakashima, Shigehiro Doi, Toshinori Ueno, Takao Masaki. *Hiroshima University Hospital, Hiroshima, Japan.*

Background: In 2016, the definitions of sepsis and septic shock were reviewed by the Society of Critical Care Medicine and Sequential Organ Failure Assessment (SOFA) and a quick SOFA score was added to those definitions. Direct hemoperfusion therapy with polymyxin B-immobilized fiber cartridge (PMX-DHP) has been widely used to treat sepsis and septic shock. However, prognostic factors are not well understood. We retrospectively assessed the prognostic factors of patients who had received PMX-DHP for sepsis and septic shock.

Methods: Data on 71 patients with severe infection who had undergone PMX-DHP from January 2006 to August 2015 were included in this study. Participants were re-evaluated according to the criteria of the Third International Consensus Definitions for Sepsis and Septic Shock (Sepsis-3) and all were confirmed to satisfy the new definition of sepsis. The patients were divided into groups based on having survived (n=59) or not survived (n=12) for 28 days after PMX-DHP. Clinical data before and after PMX-DHP were compared between the two groups.

Results: In the non-survivor group, the Glasgow Coma Scale score before PMX-DHP was significantly lower than in the survivor group (12 [6 to 14] vs 14 [12 to 15], P<0.01). Furthermore, pH after the first PMX-DHP session was significantly lower in non-survivors than in survivors (7.28±0.23 vs 7.39±0.06, P=0.03). The only factor identified by multivariate analysis as significantly associated with 28-day mortality was pH after the first PMX-DHP session (odds ratio, 0.93; 95% CI, 0.83–0.99; P=0.02).

Conclusions: pH after the first PMX-DHP session is an independent risk factor for mortality in patients receiving PMX-DHP for sepsis and septic shock.

TH-PO1119

Urinary Acid Excretion in Overweight Patients with CKD Yuichiro Izumi,[3] Koji Eguchi,[5] Yushi Nakayama,[3] Hideki Inoue,[6] Hiroshi Nonoguchi,[2] Yutaka Kakizoe,[1] Takashige Kuwabara,[4] Masashi Mukoyama.[4] *[1]Department of Nephrology, Kumamoto university graduate school of medical sciences, Kumamoto, Japan; [2]Kitasato University Medical Center, Kitamoto, Japan; [3]Kumamoto University, Kumamoto, Japan; [4]Kumamoto University Graduate School of Medical Sciences, Kumamoto, Japan; [5]Kumamoto University Graduate School of Medicine, Kumamoto, Japan; [6]Kumamoto University School of Medicine, Kumamoto, Japan.*

Background: Urinary ammonium excretion, which reflects acid excretion by the kidney, has been suggested as a predictor for the chronic kidney disease (CKD) outcome. Overweight is one of the risk factors for progression of CKD. We examined urinary acid excretion in overweight CKD patients.

Methods: 25 Japanese out-patients with CKD who were treated with diet and medical therapy in our hospital were enrolled to evaluate acid excretion by the kidney. A 24-h urine collection was performed one day before visiting our hospital to determine excretion of creatinine, protein, urea, ammonium, pH, titratable acid (TA) and other electrolytes. Blood test was performed at visiting day. Their creatinine clearance (Ccr) corrected by body surface area was from 10 to 120 ml/min. For further analysis, patients, whose Ccr was > 30 ml/min, were divided into two groups: 11 normal (BMI 21 ± 2 kg/m^2) and 10 overweight (28 ± 3 kg/m^2) patients. Acid excretion between two groups was compared.

Results: Both ammonium (Figure 1) and TA excretions decreased with the decrease of Ccr (r^2 = 0.31, P = 0.0036 and r^2 = 0.20, P = 0.028). Between two groups, ammonium excretion was significantly decreased in overweight patients compared to that in normal weight patients (Figure 2). TA excretion tended to be increased in overweight group, resulting in no difference of total acid excretion (calculated by ammonium + TA) between the two groups. While protein and sodium chloride intakes were greater in overweight, net endogenous acid production (NEAP) and Ccr were not different between the two groups.

Conclusions: There might be a modulation of acid excretion mechanism in overweight patients with CKD.

Funding: Government Support - Non-U.S.

Figure 1

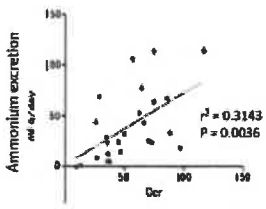
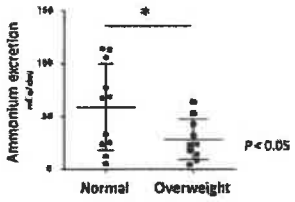


Figure 2



TH-PO1120

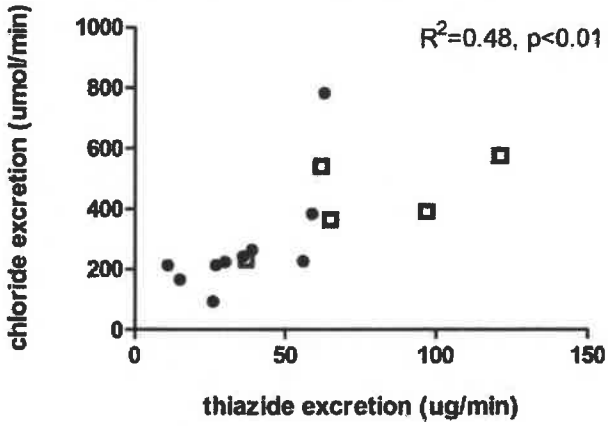
Thiazide Test in CKD: Variable Test Results Due to Differences in Thiazide Excretion Anneke Bech,[2] Tom Nijenhuis,[3] Jack F. Wetzels.[1] *[1]Radboud University Medical Center, Nijmegen, Netherlands; [2]Radboud University Nijmegen Medical Center, Nijmegen, Nijmegen, Netherlands; [3]Radboud university medical center, Lent, Netherlands.*

Background: The thiazide test is used to test the functionality of the sodium-chloride co-transporter (NCC). The test is used in the diagnostic work-up of patients with suspected Gitelman syndrome. Reference values for the thiazide test are based on small studies in young healthy volunteers. Patients presenting with tubular disorders however frequently are older and/or have a compromised kidney function. We observed a lower increase in fractional chloride excretion (delta FeCl) in patients with CKD and a remarkable variation in this parameter. In this study, we evaluated urinary thiazide excretion as an explanatory variable.

Methods: We performed thiazide tests in 10 individuals with CKD. Mean age was 65 years, mean serum creatinine was 124 µmol/l and seven individuals were male. Hydrochlorothiazide was measured in urine samples by LCMS.

Results: The median delta FeCl was 2.1% (range 0.0-3.9%). In 7 patients with CKD, the delta FeCl was below our threshold of 2.5% in healthy volunteers. CKD patients had a lower median thiazide excretion than young healthy individuals (33 µg/min vs 65 µg/min, p=0.01). There was a correlation between thiazide excretion and chloride excretion (Figure).

Conclusions: The standard thiazide test cannot be used in patients with CKD to evaluate the function of NCC. Our study indicates that invalid test results are likely explained by reduced tubular secretion of hydrochlorothiazide. Additional studies are needed to see if e.g. chloride excretion factored for thiazide excretion is a useful alternative parameter. Figure: urine hydrochlorothiazide concentration at maximal FeCl (closed circles CKD subjects, open squares young healthy individuals)



TH-PO1121

Proximal Tubular Function in Patients with Multiple Sclerosis Andrew S. Allegretti,[3] Nydjie Payas,[1] Scott Krinsky,[2] Ravi I. Thadhani,[3] Ishir Bhan.[4] *[1]Biogen, Cambridge, MA; [2]Mass General Hospital, Boston, MA; [3]Massachusetts General Hospital, Boston, MA; [4]Biogen, Inc, Cambridge, MA.*

Background: A recent database study revealed evidence of a higher than expected prevalence of Fanconi syndrome diagnosed in patients with multiple sclerosis (MS) relative to the general population. Proximal tubular function, which is altered in Fanconi