Table 1. Adjusted variations in systolic blood pressure by quartiles of spot urine sodium-to-creatinine and potassium-to-creatinine ratios

	Mean difference in systolic blood pressure (mm Hg)
Spot uNa/Cr (mmol/g) at median uK/Cr	
Q1 <69.6	Ref
Q2 (69.6–102.3)	1.31 (0.79 to 1.83)
Q3 (102.3–142.7)	2.61 (1.59 to 3.63)
Q4 ≥142.7	5.12 (3.15 to 7.10)
Spot uK/Cr (mmol/g) at median uNa/Cr	
Q1 <36.0	Ref
Q2 (36.0–46.9)	−0.28 (−0.91 to 0.34)
Q3 (46.9–61.1)	−0.53 (−1.70 to 0.64)
Q4 ≥61.1	−0.98 (−3.16 to 1.20)
Joint effects of spot uNa/Cr and uK/Cr	
Q1 of uNa/Cr and Q4 of uK/Cr	Ref
Q2 of uNa/Cr and Q3 of uK/Cr	1.59 (0.31 to 2.87)
Q3 of uNa/Cr and Q2 of uK/Cr	3.09 (1.01 to 5.16)
Q4 of uNa/Cr and Q1 of uK/Cr	5.89 (2.67 to 9.13)

uK/Cr, urine potassium-to-creatinine ratio; uNa/Cr, urine sodium-to-creatinine ratio; Ref, reference.
Model adjusted for age, gender, education level, estimated glomerular filtration rate, albuminuria category, history of diabetes, heart failure, dyslipidemia, body mass index, and number of antihypertensive drug classes.

nonsignificantly, across spot uK/Cr quartiles (P = 0.256). The interaction between spot uNa/Cr and uK/Cr was not statistically significant (P = 0.121). As a result, the size of the joint effect was modest as reflected by a mean difference of 5.89 (2.67–9.13) mm Hg in systolic blood pressure between Q4 (combining high spot uNa/Cr and low uK/Cr) and Q1 (low uNa/Cr and high uK/Cr), just above that observed for spot uNa/Cr alone. However, we would caution against a risk of bias of such a model due to colinearity between the 2 urinary markers (rho = 0.30). As shown by Yoo *et al.*,[3] even moderate correlations between 2 covariates may impact regression estimates.

Our conclusions about the preponderant role of sodium in blood pressure control, and the marginal, if any, role of potassium, in patients with moderate to severe chronic kidney disease seem robust to model specification.

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Received 14 September 2020; accepted 15 September 2020; published online 25 September 2020

Kidney Int Rep (2020) **5**, 2404; https://doi.org/10.1016/j.ekir.2020.09.020

Comments on "Supervised Exercise Intervention and Overall Activity in CKD" by Pike *et al.*

To the Editor: We read with interest the study by Pike *et al.*[1] whereby patients with stages 3 to 4 chronic kidney disease were submitted to supervised exercise and calorie restriction and assessed for a hypothetical increase in overall weekly physical activity. Nevertheless, we call attention to possible baseline differences between groups. The exercise group seems to have a lower sedentary time. The authors should have conducted an intergroup comparison to ensure that no baseline differences existed on physical activity. Moreover, the authors have adopted too tight eligible criteria, such as body mass index ≥25 kg/m^2 and do not require insulin therapy. This might not have included the real picture of the disease and could potentially skew the enrollment to a healthier and more active sample.

Our research group has recently conducted a clinical trial (UTN: U1111-1173-6199) with intradialytic cycling and resistance exercises and verified its effects on weekly physical activity by pedometry. Interestingly, we also found no differences between moments and groups (Figure 1). Although previous studies have shown improvements in weekly physical activity after exercise interventions in both hemodialysis and

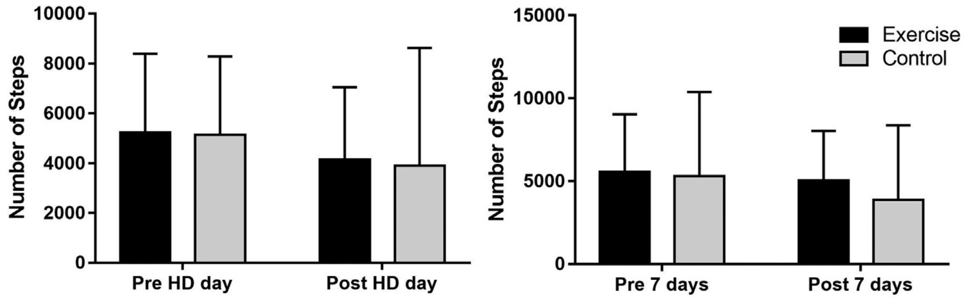

Figure 1. Number of steps on hemodialysis (HD) day and 7 days after a 12-week intradialytic exercise intervention.

nondialysis patients,[2,3] this is not consistent and fully clear.

Thus, how could we increase physical activity in patients with chronic kidney disease? The authors have brilliantly discussed the compensatory sedentary behavior of engaging in an exercise program. We believe that educational and lifestyle interventions should be emphasized in future studies. Patients need to be aware of the benefits of an active lifestyle, which goes further to engaging in exercise programs.[4]

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Received 25 August 2020; accepted 15 September 2020; published online 29 September 2020

Kidney Int Rep (2020) **5**, 2404–2405; https://doi.org/10.1016/j.ekir.2020.09.026

The Authors Reply: We thank Andrade *et al.*[1] for their observations on our study examining overall physical activity in patients with chronic kidney disease in a supervised exercise intervention compared with those with usual activity. Differences in sedentary behavior between the 2 treatment arms are a consequence of random chance, and the apparent differences led to additional analyses to address the potential impact. We conducted a comparison of baseline values of sedentary time and light, moderate, and vigorous activity between the exercise and control group and reported the results in our supplementary text (Supplementary Table S2).[2] We additionally repeated our primary analyses after stratification by baseline percentage of sedentary time and included the results in our supplementary text (Supplementary Table S3).[2] No differences between the exercise and control groups in physical activity were seen at baseline, month 2, month 4, counts per minute over months 2 and 4, or change in counts per minute when stratified by percentage of sedentary time.

Finally, to additionally alleviate concerns about differences in baseline activity in our study, we stratified the analyses by median baseline counts per minute (Table 3) and adjusted for baseline counts per minute in the analyses examining change in activity over 4 months.[2]

Andrade *et al.*[1] were concerned about the eligibility criteria of the study, whereby strict inclusion and exclusion criteria may hamper the generalizability of our findings to all patients with chronic kidney disease. The restriction to individuals with body mass index $\geq$25 kg/m^2 was implemented for safety concerns, to avoid potential development of protein energy