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Letter to the Editor

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Dear Editors,

We are writing in the hope of clarifying some questions that arose when we read two interesting and informative *JVIM* publications recently on the topic of neutrophil gelatinase-associated lipocalin.[1,2]

In the 2013 paper, the sensitivity and specificity portion of the results section of the text states,

> ROC analysis of UNCR ratio as an indicator of IRIS AKI Grade I disease compared with related renal or urinary conditions (excluding azotemic AKI) had an area under the ROC curve of 0.96 (95% CI, 0.89–1.00). The optimal UNCR cutoff point was 238,000 pg/mg corresponding to sensitivity and specificity of 100% and 85%, respectively.

However, in fig. 1, the box-and-whisker plot for Group 5 (Grade I AKI) extends below the threshold of 238,000 pg/mg—which would result in sensitivity of less than 100%. Can you explain the apparent discrepancy between the text and the figure?

In the 2016 paper, the introduction states,

> In another study, we reported that a >7-fold increase in uNGAL-to-urinary creatinine ratio (UNCR) above baseline discriminated AKI from other types of urinary disease. Our previous study demonstrated UNCR to be a specific marker, showing an increase in dogs with naturally acquired AKI, but many of these dogs were affected by other comorbidities that could have affected assessment of NGAL concentrations. Furthermore, assessment of NGAL as a marker for renal recovery was not performed in that study.[13]

The citation is the 2013 paper. However, as best as we can determine, the 2013 paper included only a single UNCR data point for each dog and did not compare baseline vs. subsequent UNCR results in any dogs with AKI. Can you help us understand how the 2013 study demonstrated the greater than 7-fold increase over baseline referred to above?

Also in the 2016 paper, fig. 1 shows what appear to be identical serum creatinine data in graphs A, C, and D. The probability of three dogs having exactly the same creatinine results at every time point seems extremely low. Is the figure erroneous?

Any clarification would be appreciated.

Sincerely,

References

1. Segev G, Palm C, LeRoy B, et al. Evaluation of neutrophil gelatinase-associated lipocalin as a marker of kidney injury in dogs. J Vet Intern Med 2013;27:1362–1367.

2. Palm CA, Segev G, Cowgill LD, et al. Urinary neutrophil gelatinase-associated lipocalin as a marker for identification of acute kidney injury and recovery in dogs with gentamicin-induced nephrotoxicity. J Vet Intern Med 2016;30:200–205.

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