Published in final edited form as:

Eur J Neurol. 2017 January ; 24(1): e2. doi:10.1111/ene.13178.

Response to Comment on Plasma Uric acid and risk of ischemic stroke in women

Monik C. Jiménez, ScD

Division of Preventive Medicine, Department of Medicine, Brigham and Women's Hospital, Boston, MA

Keywords

plasma uric acid; ischemic stroke; women; inflammation; biomarkers; uric acid

We appreciate Dr. Kawada's interest [1] in our study[2] and careful consideration of the design. Kawada suggests that design considerations may limit the precision of our estimates and causal interpretation. Specifically, Dr. Kawada states that the 1:1 matching ratio employed in our study may limit the precision of observed estimates. While we agree that increasing a matching ratio can improve precision, this gain is most clearly apparent when the number of cases is small.[3] In our study which utilized a nested case-control design of 460 case control pairs, little gain in precision would have been obtained by increasing the matching ratio. Additional concerns are raised regarding the causal interpretation of these findings. We agree that further work is needed, such as a randomized control trial, to provide evidence to support causality; however, meta-analyses or systematic review would not be sufficient to infer causality given these would simply be secondary data analysis of observational data. To provide the strongest data available we reported previous findings from eight observational studies, given that clinical trial data examining the role of uric acid on incident stroke events is not currently available. Moreover, we found it important to distinguish between total and incident stroke; however, information regarding incidence versus mortality was not readily available for each study. We agree that this additional information would have been useful in framing the previous literature. In conclusion, we agree with Dr. Kawada that further work is necessary to understand the role of uric acid in risk of ischemic stroke and the potential for developing novel cost-effective interventions.

Acknowledgments

HL088521, HL088521-S1 and HL34594 from the National Heart, Lung and Blood Institute of the National Institutes of Health and CA186107, CA87969 and CA49449 from the National Cancer Institute. Dr. Curhan is supported by DK91417 from the National Institute of Diabetes and Digestive and Kidney Diseases.

Corresponding author: Monik C. Jiménez, ScD, 900 Commonwealth Ave, 3rd Floor, Boston, MA 02215, mjimenez11@partners.org.

Conflict of interest: None

References

1. Kawada T. Plasma uric acid and risk of ischaemic stroke in women. *Eur J Neurol*. 2016 in press.
2. Jiménez MC, Curhan GC, Choi HK, Forman JP, Rexrode KM. Plasma uric acid concentrations and risk of ischaemic stroke in women. *Eur J Neurol*. 2016; 23:1158–64. [PubMed: 27061733]
3. Holford TR. Multivariate methods in epidemiology. 2002