We've Only Just Begun: A Conversation Started Shouldn't Be Mistaken for The Last Word

Response to Ganguly G. Vitamin D deficiency, excessive daytime sleepiness: an epiphenomenon or a "chicken or an egg—which came first" issue? *J Clin Sleep Med* 2013;9:517-518.

David E. McCarty, M.D.; Andrew A. Marino, Ph.D.

Division of Sleep Medicine, Department of Neurology, Louisiana State University Health Sciences Center, Shreveport, LA

LETTER TO THE EDITOR

We agree with Dr. Ganguly's initial comments¹ about our recent publication,² that a relationship between the Epworth Sleepiness Scale score (ESSs) and circulating 25-OH Vitamin D is interesting, but disagree that the research as presented was confusing. Instead, we would suggest a more accurate assessment is that the identified relationships are complex and requiring of further study. These points were stated fairly clearly in the discussion.

To be included in this cohort, subjects merely had to admit to the presence of moderate or severe musculoskeletal pain either interfering with sleep or interfering with daytime function. Dr. Ganguly raises the point that one would expect "insomnia secondary to medical condition" to be the most prevalent sleep disorder, whereas insomnia was only reported in 16% of our sample. In response to this, we can only state that, according to the judgment of the physician caring for the patient (DM), the most appropriate clinical diagnoses were given at the time of the encounter, and these diagnoses were abstracted and reported during the process of research-related chart review. These data were provided merely to provide some degree of background information to clinicians who wish to see if the population we studied was at all comparative to clinical populations they serve. The fact that the data don't adhere to Dr. Ganguly's expectations is noted, but is also arguably irrelevant to the major findings presented.

Next, Dr. Ganguly raises multiple questions about the underlying mechanism of EDS within the cohort we studied, stating that EDS may be related to each subject's underlying sleep disorders, tendency toward noncompliance, whether melanin may somehow be involved, and so forth. The issue of causation was clearly addressed in the discussion section of the paper—an association between two variables does not guarantee causation. It is crucial to emphasize, how-

ever, that this study was never designed to provide conclusive data on causation. To this point, we gently remind Dr. Ganguly that causation cannot be investigated at all if an association is not recognized to exist. We hope this paper helps initiate the scientific conversation about the possible role of Vitamin D deficiency in the pathophysiology of sleep disorders, as well as the potential role of Vitamin D supplementation in the treatment and/or prevention of diseases encountered by Sleep Medicine specialists.

We agree with Dr. Ganguly that more research is needed to help resolve these unanswered questions.

CITATION

McCarty DE; Marino AA. We've only just begun: a conversation started shouldn't be mistaken for the last word. *J Clin Sleep Med* 2013;9(5):519.

REFERENCES

1. Ganguly G. Vitamin D deficiency, excessive daytime sleepiness: an epiphenomenon or a "chicken or an egg—which came first" issue? *J Clin Sleep Med* 2013;9:517-8.
2. McCarty DE, Reddy A, Keigley Q, Kim PY, Marino AA. Vitamin D, race, and excessive daytime sleepiness. *J Clin Sleep Med* 2012;8:693-697.

SUBMISSION & CORRESPONDENCE INFORMATION

Submitted for publication February, 2013

Accepted for publication February, 2013

Address correspondence to: David E. McCarty, M.D., Division of Sleep Medicine, LSUHSC-Shreveport, P.O. Box 33932, 1501 Kings Highway, Shreveport, LA 71130-3932; Tel: (318) 675-8568; Fax: (318) 675-6382; Email: dmcca1@lsuhsc.edu

DISCLOSURE STATEMENT

The authors have indicated no financial conflicts of interest. This work does not involve off-label or investigational drug use. This work was supported by the Department of Neurology, LSUHSC-Shreveport.