

Reply to the commentary on: ‘Sleep disordered breathing and the risk of psoriasis among US women’

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We thank Dr. Kawada for his interest in our study. Our prospective cohort study reveals an association between obstructive sleep apnea (OSA) and incident psoriasis. While we do show a statistically significant association, it is clear to us that we are unable to make any comments about causation based on an individual epidemiologic study, or even a systemic review of epidemiologic studies. Inference into a causal relationship requires further studies, particularly the elucidation of potential etiologic mechanisms underlying the associations.

We do, however, show a temporal relationship between OSA and risk of subsequent psoriasis in a longitudinal cohort by requiring women to have had a diagnosis of OSA for at least 2 years prior to a diagnosis of psoriasis. Therefore, while a bidirectional association between OSA and psoriasis has been reported from other sources [1], our study design requires a diagnosis of OSA prior to psoriasis for an inclusion of the association between psoriasis and risk of subsequent OSA.

Our study is limited by the lack of male participants. However, we believe that our findings likely do apply to males given that there is no evidence that the relationship between OSA and psoriasis would be different in men and women. As we are still in the process of collecting further data on psoriasis severity and systemic treatment, we also cannot comment on risk based on disease severity or improvement of psoriasis with OSA management. We do believe, however, that in light of our findings it would be interesting to study the impact of the use of continuous positive airway pressure on psoriasis severity in individuals with both OSA and psoriasis.

Reference

1. Hirotsu C, Nogueira H, Albuquerque RG, Tomimori J, Tufik S, Andersen ML (2015) The bidirectional interactions between psoriasis and obstructive sleep apnea. *Int J Dermatol* 54:1352–1358

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