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LETTER TO THE EDITOR

Association between obstructive sleep apnea and thyroid cancer incidence: a national health insurance data study

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Dear editor,

One retrospective cohort study conducted by Choi et al. published in European Archives of Oto-Rhino-Laryngology revealed that the hazard for thyroid cancer was higher in patients with obstructive sleep apnea compared with the control group (adjusted hazard ratio = 1.64, 95% confidence interval = 1.53–1.76) [1]. Some points are shared with the readers.

First, obesity is a well-known risk factor for the development of obstructive sleep apnea.[2] Whenever obstructive sleep apnea is studied, obesity is always included for adjustment. In addition, the literature revealed that obesity is considered as a risk factor for thyroid cancer [3]. Therefore, obesity might confound the association between obstructive sleep apnea and thyroid cancer found in Choi et al.'s study. The authors mentioned that obesity was not thoroughly examined in their study. Actually, the data on body mass index are available in the dataset of Korea National Health Insurance Service (KNHIS). The readers do not know the reason why body mass index was not included for analysis. If body mass index can be included for adjustment, the results of Choi et al.'s study can be correctly interpreted.

Second, Choi et al.'s study revealed that the incidence rate of thyroid cancer was 1.141 in the obstructive sleep apnea group and 0.664 in the control group, but the person-year was not presented in the table [1]. If the authors can provide person-year information, the readers can make a meaningful interpretation of these figures. Third, whether or not patients with obstructive sleep apnea need routine thyroid ultrasound examination is still unclear. If thyroid nodules are found by patients themselves or by physicians' physical examination, it is a rational decision to perform thyroid ultrasound examination. Then thyroid cancer might be detected early. Finally, I think that the association between obstructive sleep apnea and thyroid cancer found in Choi et al.'s study is present, but it could be confounded by other factors, such as obesity. Current evidence is insufficient to regard obstructive sleep apnea as a risk factor for thyroid cancer. Such an association is a new topic, but relevant research is not conclusive. We agree with Choi et al.'s conclusion that future studies are required to explore this topic.

Declarations

Conflict of interest The authors disclose no conflicts of interest.

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