



# Sex disparities in thyroid cancer may need further exploration

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The prognosis of most thyroid cancer patients is usually excellent, but sex differences in the prognosis of thyroid cancer remain controversial. Li *et al.* recently reported an article (1) and I congratulate the authors for making a sincere attempt at this topic assessing sex disparities in thyroid cancer. However, there are certain caveats to this interpretation.

First, the thyroid gland is a relatively superficial organ, and the size of thyroid tumors is generally not too large. The mean tumor size in many studies (2-4) that analyzed thyroid cancer using the Surveillance, Epidemiology, and End Results (SEER) database was generally around 20 millimeters, while the mean sizes in the article by Li *et al.* (1) were 17.4 centimeters in females and 23.5 centimeters in males, respectively, and there is a significant difference between their study and clinical practice and other studies. The reason for this discrepancy may be that the authors miscalculated the units of tumor size. Double-check their data and relevant modifications are suggested.

Second, a major change in the American Joint Committee on Cancer (AJCC) staging manual, eighth edition, for differentiated and anaplastic thyroid carcinoma, is that the age cut-off was adjusted to 55 years from 45 years in the seventh edition (5). In their study, they used the age cut-off of 55 years from the eighth edition of AJCC staging system, but other staging criteria were from the seventh edition, which might lead to certain unpredictable biases. It is recommended to use the same AJCC staging system in the same study. While their article was published in 2021, and the eighth edition has been proposed in 2016,

it is possible to use the latest AJCC staging system to make the study more consistent with the current research background.

In summary, I am enthusiastic about the study proposed by the authors and the study opened up new ideas for the sex disparities in thyroid cancer. However, some imperfections of the study also need to be addressed, and this may help the authors and readers understand the subject better. Sex disparities in thyroid cancer may still need further exploration.

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