



High maximum standardized uptake value might be associated more with T2b (≥ 4 cm) than T2a (< 4 cm) in patients with T2N1 hormone receptor-positive, ERBB2-negative breast cancer

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Dear Editor,

I read with great interest the article by Han et al. [1] in which they determine whether tumor uptake of ^{18}F -fluorodeoxyglucose (^{18}F -FDG) is associated with invasive disease-free survival (IDFS) in patients with hormone receptor (HR)-positive, ERBB2-negative early-stage breast cancer treated with adjuvant chemotherapy. They reported that high SUVmax on preoperative ^{18}F -FDG PET/CT was independently associated with reduced long-term IDFS in T2N1 HR-positive, ERBB2-negative breast cancer patients who underwent adjuvant chemotherapy. The overall association between SUVmax and IDFS appeared to be consistent across subgroups divided according to age, progesterone receptor status, histologic grade, or presence of lymphovascular invasion. However, they did not add tumor size into a subgroup. T2 tumors represent a wide range of sizes (> 2 – 5 cm). We aimed to compare clinicopathological features and prognosis of T2N0 stage breast cancer with tumor size larger vs smaller than 4 cm. There were 268 (80%) T2a (< 4 cm) and 65 (20%) T2b (≥ 4 cm) pts among T2N0 ($n = 333$) population. We found that breast cancer patients with T2b (≥ 4 cm) tumors showed worse prognosis compared to patients with T2a (< 4 cm) tumors [2]. Taken all together, it would be expected that high SUVmax might be associated more with T2b (≥ 4 cm) tumors than T2a (< 4 cm) tumors. This issue needs further investigation.

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Declarations

Conflict of interest We declare that I have no conflict of interest.

Ethical approval Not applicable.

Informed consent Not applicable.

Research involving human and animal rights This article does not contain any studies with human participants or animals performed by any of the authors.

References

1. Han S, Lee SB, Gong G et al (2023) Prognostic significance of pretreatment ^{18}F -fluorodeoxyglucose positron emission tomography/computed tomography in patients with T2N1 hormone receptor-positive, ERBB2-negative breast cancer who underwent adjuvant chemotherapy. *Breast Cancer Res Treat.* <https://doi.org/10.1007/s10549-022-06852-5>
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