



Comment on the “Perivascular Invasion: A Promising Prognostic Parameter for Breast Cancer”

“Perivasküler İnvazyon: Meme Kanserinde Umut Verici Prognostik Parametre” Üzerine Yorum

© Ahmet BOZER

Izmir City Training and Research Hospital, Clinic of Radiology, Izmir, Türkiye

Keywords: Invasion, prognostic parameter, breast cancer

Anahtar kelimeler: Invasion, prognostic parameter, breast cancer

Dear Editor,

The study titled “Perivascular Invasion: A Promising Prognostic Parameter for Breast Cancer” provides a significant contribution to the understanding of perivascular invasion (PVI) in breast cancer (1). The authors demonstrated that PVI is significantly associated with key clinicopathological parameters, including tumor size, histologic grade, lymphovascular invasion (LVI), and perineural invasion. These findings underscore the potential importance of PVI as a prognostic factor in breast cancer. We read this study with great interest and commend the authors on their valuable contribution.

One of the strengths of this study is its detailed examination of the prognostic significance of PVI. The incorporation of PVI, in addition to commonly used histologic and molecular markers in breast cancer, may enhance risk stratification efforts. The study utilized a large clinicopathological dataset, and the relationships between PVI and several prognostic factors were statistically substantiated. The results reveal that PVI is particularly linked to adverse prognostic indicators, such as larger tumor size and higher histologic grade.

Despite the study's strengths, we believe that certain aspects could benefit from further elaboration. First, the development of a prognostic index incorporating PVI might be worth exploring. In clinical practice, indices such as the Nottingham Prognostic Index are widely used to guide treatment decisions. Including PVI in a similar index could potentially improve the accuracy of clinical risk assessments.

Regarding molecular subtypes, the study found no significant correlation between PVI and breast cancer subtypes. However, as mentioned in the article, previous studies have reported higher microvascular density in certain subtypes, particularly in triple-negative breast cancer. Further research with larger sample sizes may provide more definitive conclusions on this relationship.

In terms of pathological assessment, the study evaluated PVI using only hematoxylin and eosin staining. Given the potential variability in vessel sizes, reliance solely on this method may affect diagnostic accuracy. Incorporating immunohistochemical techniques could enhance diagnostic reliability and reduce interobserver variability.

Address for Correspondence: A. Bozer, Izmir City Training and Research Hospital, Clinic of Radiology, Izmir, Türkiye

E-mail: drahmetbozer@gmail.com **ORCID ID:** orcid.org/0000-0002-0467-741X

Cite as: Bozer A. Comment on the “perivascular invasion: a promising prognostic parameter for breast cancer”. Medeni Med J. 2025;40:31-32

Received: 03 February 2025

Accepted: 08 February 2025

Epub: 14 March 2025

Published: 28 March 2025



The study noted that no deaths occurred among patients with PVI during the follow-up period. However, to better assess the prognostic implications of this finding, survival analyses using Kaplan-Meier curves or Cox regression would be beneficial. While the study collected data on overall survival, other critical prognostic outcomes, such as local recurrence and distant metastasis, were not included. Investigating the relationship between PVI and these parameters could provide further insights into its prognostic relevance in clinical practice.

Finally, direct comparisons between PVI and other established prognostic markers, such as LVI and Ki67, would enhance the clarity of PVI's prognostic role. Quantifying its impact relative to these markers could strengthen its utility in clinical decision-making.

In conclusion, this study makes an important contribution to the literature by elucidating the role of

PVI in breast cancer prognosis. Further integration of PVI into prognostic assessments and a more detailed exploration of its molecular associations could yield significant clinical benefits. We congratulate the authors once again on this noteworthy research and wish them continued success.

Sincerely,

Ethics

Financial Disclosure: The author declared that this study has received no financial support.

REFERENCE

1. Çalım Gürbüz B, Söylemez Akkurt T, Eren H, İzol Özmen H, Şen E, Pehlivanoglu B. Perivascular invasion: a promising prognostic parameter for breast cancer. Medeni Med J. 2024;39:302-8.