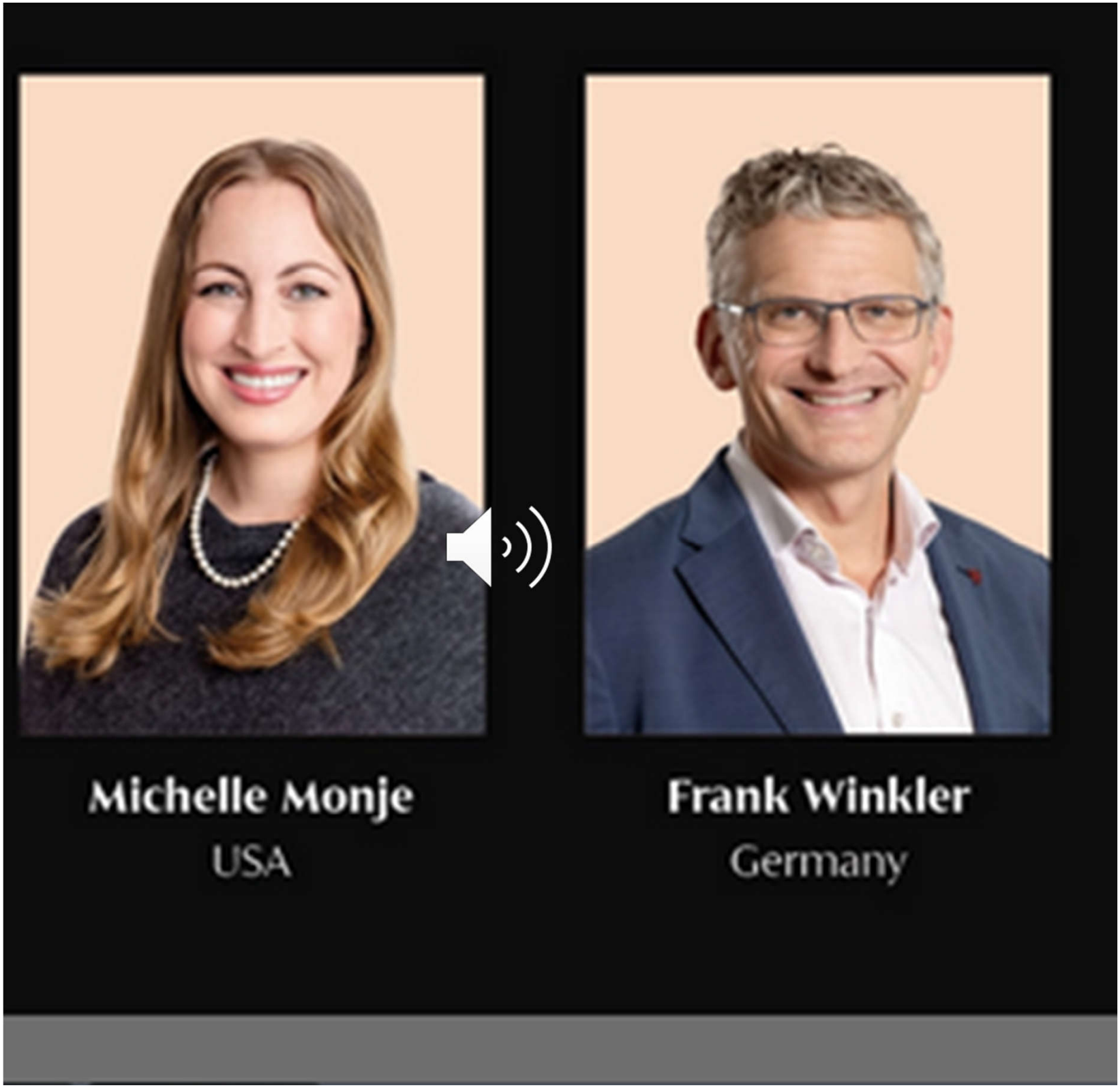

Michelle Monje
USA
Frank Winkler
Germany

Discover The Brain Prize 2025 Winners: Pioneering research into brain cancer is awarded the world's largest brain research prize, The Brain Prize

06 March 2025

Neuroscience News, Society & Partner News

award for outstanding contributions to neuroscience, established by the Lundbeck Foundation.

The Brain Prize 2025 worth DKK 10 million (€1.3 million) is awarded to: Michelle Monje MD, PhD, the Milan Gambhir Professor of Pediatric Neuro-Oncology at Stanford Medicine and Howard Hughes Medical Institute Investigator,

and

Frank Winkler, MD, Professor of Experimental Neurooncology, Heidelberg University, Heidelberg University Hospital, Department of Neurology, and German Cancer Research Center

for:

Pioneering Cancer Neuroscience: Disease-driving interactions between the brain and brain tumours.

Exploring temperature trajectories in emergency department sepsis patients

Norawit Kijpaisalratana [a,b], Ahmad Hassan [a] ✉, Boyu Peng [a], Abdel Badih el Ariss [a], Kian Samadian [a], Suhanee Mitragotri [c], Spencer Lord [d], Benjamin Renne [d], Osman Tanrikulu [a], Pedram Safari [a], Michael Filbin [a], Jamie Lee [d], Shuhan He [a,f]

Results

Four distinct body temperature patterns were identified: Hypothermic (0.9%), Normothermic (74.1%), Progressive Fever (10.7%), and Fever Resolver (14.4%). The Hypothermic group had the highest mortality rate (37.5%), while the Normothermic, Progressive Fever, and Fever Resolver groups had mortality rates of 11.7%, 9.14%, and 9.78%, respectively ($p<0.001$).

Conclusions

Fever is not always a reliable sepsis indicator; many patients present normothermic or hypothermic, notably the highest mortality cohort. Including diverse temperature patterns in sepsis assessments could enhance patient outcomes.

One Dose versus Three Doses of Benzathine Penicillin G in Early Syphilis

Authors: Edward W. Hook III, M.D., Jodie A. Dionne, M.D., M.S.P.H., Kimberly Workowski, M.D., Candice J. McNeil, M.D., M.P.H., Stephanie N. Taylor, M.D., [illegible] mbrowski, M.D., M.P.H., +7 , and Lori M.

infection and 70% of those who did not. Most participants in each group had local injection-site pain and tenderness with treatment (76% with a single dose and 85% with three doses).

CONCLUSIONS

Treatment with one dose of 2.4 million units of benzathine penicillin G was noninferior to treatment with three doses with regard to serologic response 6 months after treatment. (Funded by the National

JAMA Network Open

Cardiopulmonary Point-of-Care Ultrasonography for Hospitalist Management of Undifferentiated Dyspnea

Kameswari Maganti, MD[1]; Catherine Chen, MD[2]; Ankush D. Jamthikar, PhD[1] ; et al

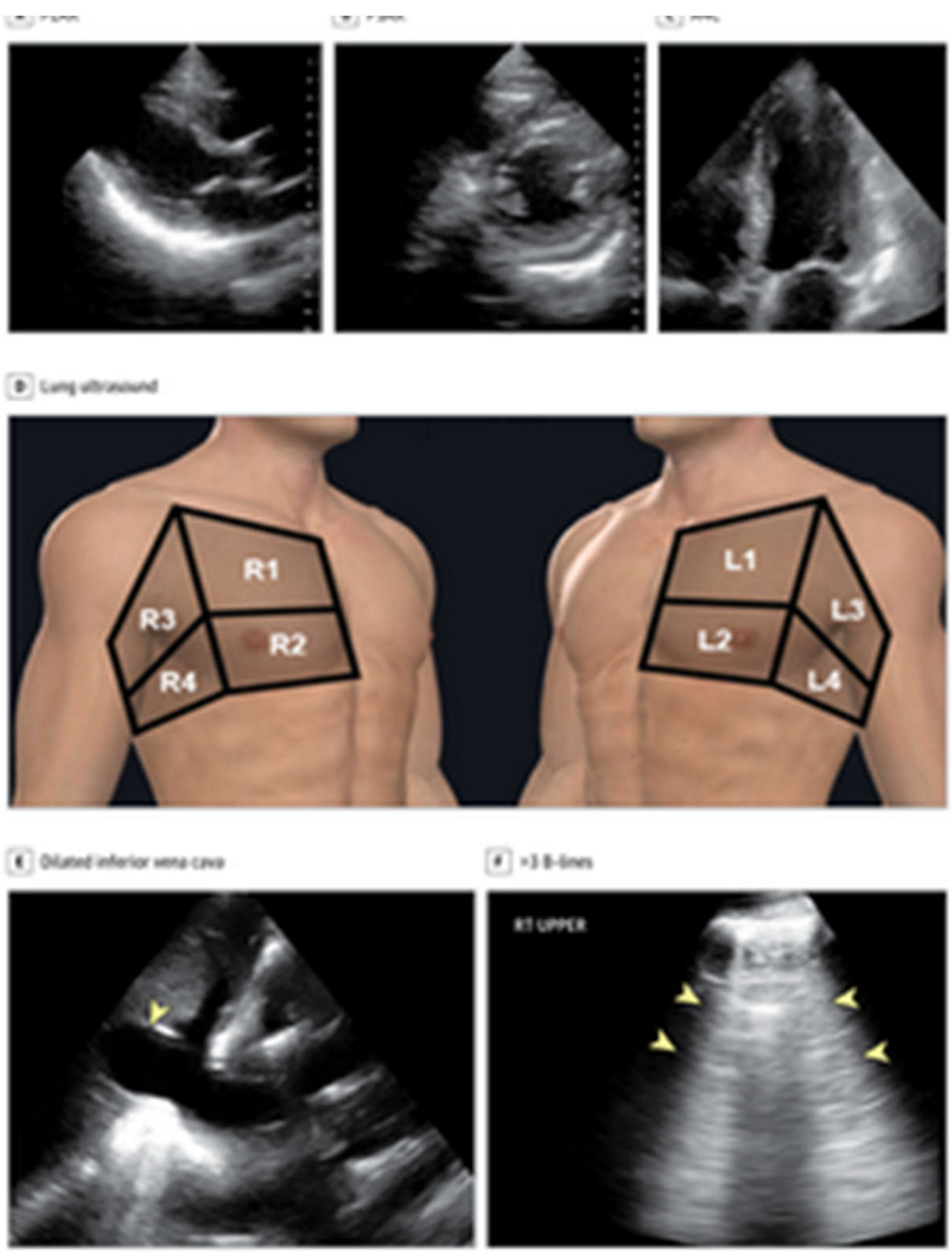
JAMA Netw Open
Published Online: September 5, 2025
2025;8;(9):e2530677.
doi:10.1001/jamanetworkopen.2025.30677

JAMA Network Open

Original Investigation | Cardiology

Cardiopulmonary Point-of-Care Ultrasonography for Hospitalist Management of Undifferentiated Dyspnea

Kameswari Maganti, MD; Catherine Chen, MD; Ankush D. Jamthikar, PhD; Payal Parikh, MD; Naveena Yanamala, PhD; Partho P. Sengupta, MD, DM


D Lung ultrasound
R1
R2
R3
R4
L1
L2
L3
L4
E Dilated inferior vena cava
F >3 B-lines
RT UPPER

[illegible]

Yang *et al. BMC Medical Imaging* (2025) 25:343
https://doi.org/10.1186/s12880-025-01890-z

BMC Medical

RESEARCH Open

A non-invasive preoperative model for predicting sentinel lymph node metastasis in breast cancer using clinical data and MRI

Yunqing Yang[1], Zhulin Wang[2], Haidong Wang[3], Yun Wang[4] and Yang Fu[5*]

Abstract

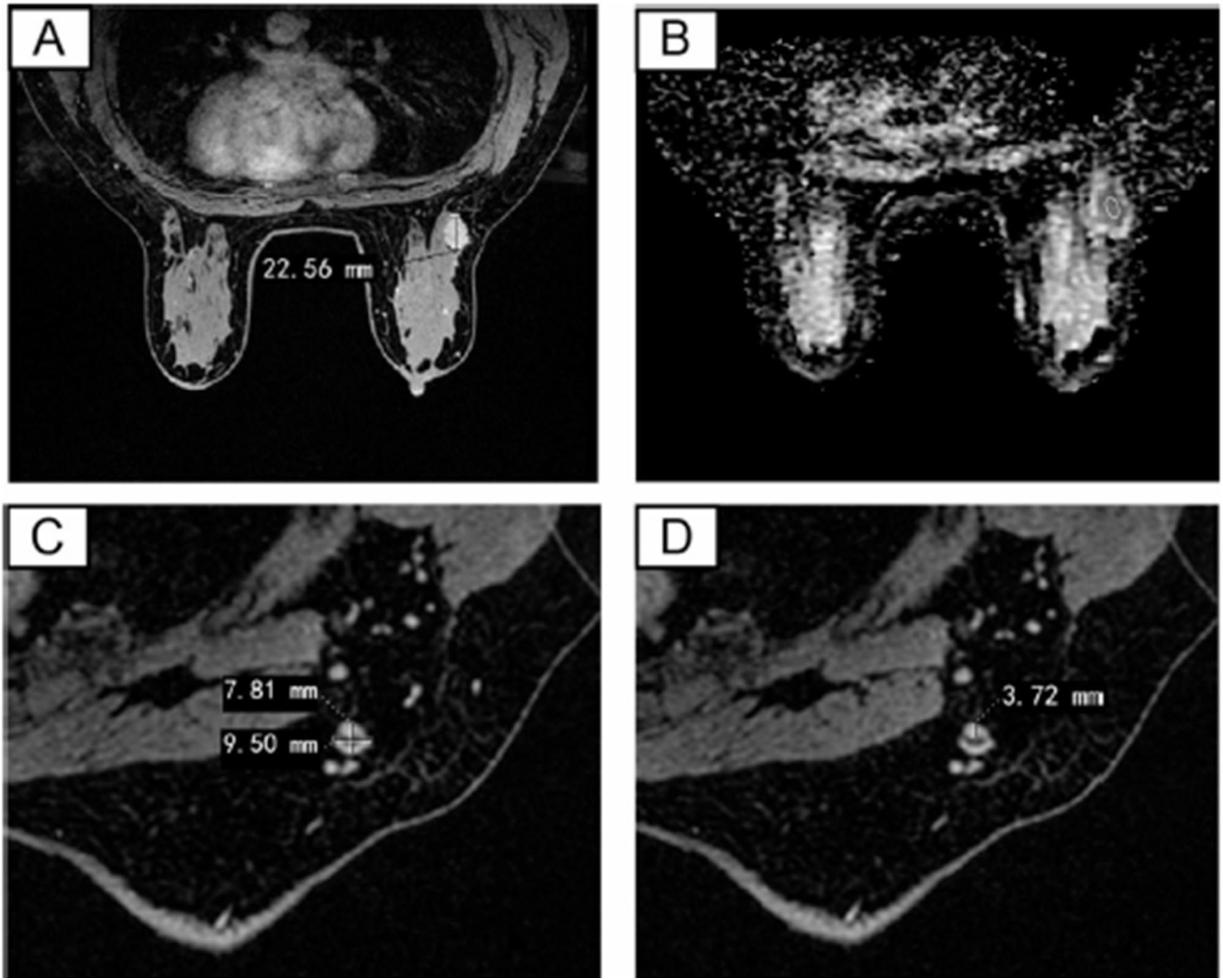
Introduction Breast cancer is the leading cause of cancer-related death among women, with metastasis accounting for the majority of these deaths. Sentinel lymph node (SLN) status is crucial for staging and treatment planning. This study aims to develop a non-invasive preoperative model for predicting SLN metastasis using clinical data and preoperative MRI.

Methods A retrospective study included 4,276 breast cancer patients who underwent surgery were enrolled. After exclusions, 999 patients were analyzed. Univariable and multivariable logistic regression identified significant predictors of SLN metastasis, which were used to construct nomograms. Calibration curves and decision curve analysis (DCA) validated the model's accuracy. Recursive partitioning analysis (RPA) was used to create a risk stratification system.

Results Significant predictors of SLN metastasis included tumor size on MRI, multifocality, MRI-BIRADS classification, ADC value, short axis, and cortical thickness ($P < 0.05$). The nomogram showed excellent discriminatory power with an AUC of 0.847. The RPA stratified patients into low-, intermediate-, and high-risk groups, with respective SLN metastasis probabilities of 15.8%, 28.6%, and 69.8%.

Conclusions This non-invasive SLN metastasis prediction model and risk stratification system provide a valuable tool for personalized clinical decision-making, potentially reducing the need for SLN biopsy in low-risk patients. Further studies are needed to validate these findings.

Keywords Breast cancer, Sentinel lymph node, Dynamic contrast-enhanced MRI (DCE-MRI), Nomogram, Decision curve analysis, Recursive partitioning analysis


A
22.56 mm
B
C
7.81 mm
9.50 mm
D
3.72 mm

Conclusion

This research examines the potential application of a decision-making model for predicting SLN involvement in breast cancer patients. The proposed preoperative model provides a framework for stratifying risks of SLN metastasis in primary breast cancer, supporting clinicians in selecting more effective personalized treatments. Importantly, the model may help identify clinically negative patients at low risk of SLN metastasis, potentially obviating the need for SLNB and reducing unnecessary surgical interventions.

THE END