INTERNET NEWS

BS. Nguyễn Văn Công

Medscape Medical News

Breast Implants Linked to Unexpected Cardiac Risks in Women

Paolo Spriano, MD

May 26, 2025

- Silicone breast implants were introduced in the 1960s and have since gained popularity as staples in plastic surgery for aesthetic and reconstructive purposes. Health concerns related to breast implants have sparked intense debate due to inconclusive evidence regarding long-term outcomes.
- A significant challenge lies in the absence of reliable population-based estimates of implant prevalence rates due to the lack of historical registries and the availability of incomplete sales data, which have prevented reliable absolute risk assessments.
- Recent studies based on routine chest x-rays have estimated the prevalence of breast implants in the general population to be approximately 3% in the Netherlands and 4% in Italy.
- Coronary artery disease (CAD) in women tends to have a worse short- and long-term prognosis than that in men and remains the leading cause of mortality globally.
- Both clinical symptoms and diagnostic approaches can be challenging in women because of their lower likelihood of presenting with classic anginal symptoms and the poor performance of conventional stress tests.
- Moreover, women with ischemic signs and symptoms are more likely to have nonobstructive CAD, necessitating additional imaging and therapeutic considerations compared with men.

- Recommendations for noninvasive cardiac diagnostic testing in women with suspected CAD are primarily based on evidence derived from cohort studies conducted on middle-aged men.
- Most diagnostic and prognostic evidence in cardiac imaging in women and men has been derived from observational registries and reference populations, which are subject to selection bias and other biases.
- A deeper understanding of gender differences and their impact on noninvasive cardiac testing in women could greatly improve clinical decision-making.

Challenges

- The interference of breast implants with cardiac diagnostic procedures is a challenge. Despite the increasing use of these procedures in aging women and the higher prevalence of atypical presentations of cardiac ischemia, which often prompt greater reliance on cardiac diagnostic assessments.
- Common methods for identifying hemodynamically significant CAD include radionuclide myocardial perfusion imaging using single-photon emission computed tomography (SPECT) and PET.
- Furthermore, echocardiography is routinely employed to evaluate cardiac structures and functions, along with stress echocardiography, which is used to assess coronary ischemia.
- The presence of silicone or saline breast implants can significantly increase attenuation artifacts during both echocardiography and SPECT imaging, resulting in false-positive rates in this population.

False Positives

The elevated false-positive rates in cardiac tests have prompted researchers to assess the hypothesis that women with breast implants experience a higher incidence of positive cardiac tests and coronary angiography associated with lower rates of percutaneous coronary interventions (PCI) than women without implants.

A retrospective analysis using the National Inpatient Sample (NIS) database was conducted.

Among the NIS population, 1,871,335 women aged 18 years or older underwent coronary angiography, of whom 865,020 underwent PCI.

Women with breast implants with abnormal cardiac functional tests were 10 years younger (55.06 years vs 65.06 years; $P < .001$).

Additionally, the breast implant cohort had a higher adjusted abnormal cardiac functional study, even after adjusting for age, ethnicity, diabetes, hypertension, hyperlipidemia, ST-elevation myocardial infarction, non–ST-elevation myocardial infarction, chronic kidney disease, breast cancer, and smoking (odds ratio [OR], 1.78; 95% CI, 1.22-2.68; $P = .02$).

Adult women with breast implants also had a significantly higher rate of adjusted coronary angiography (OR, 1.3; $P < .001$) but a lower rate of PCI (35.7% vs 46.2%; $P < .001$; unadjusted OR, 0.65; adjusted OR, 0.79; $P = .01$).

Key findings:

•Women with breast implants had a significantly higher rate of abnormal cardiac functional test results than those without implants, with an increased rate of cardiac catheterization and a lower rate of PCI.

•Breast implants significantly interfered with the reliability and validity of noninvasive cardiac tests in assessing cardiac ischemia.

•Women should be thoroughly informed of the potential impact of implants on abnormal outcomes of any cardiac diagnostic test, which may lead to an increase in invasive cardiac procedures.

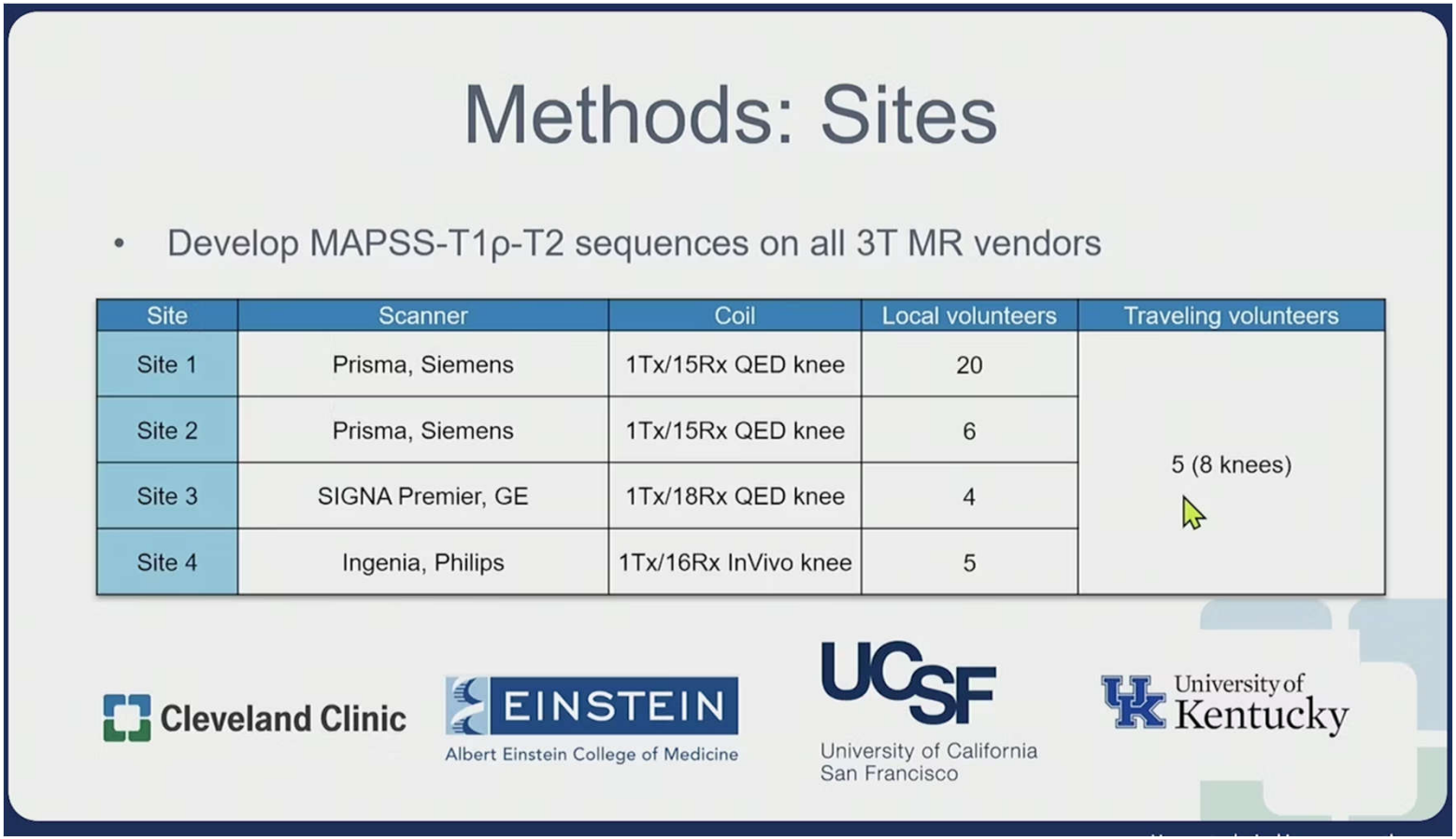
RESOURCES | CONFERENCE | ISMRM | ISMRM 2025

ISMRM: 5-minute knee scan promising for early detection of osteoarthritis

Liz Carey
May 16, 2025

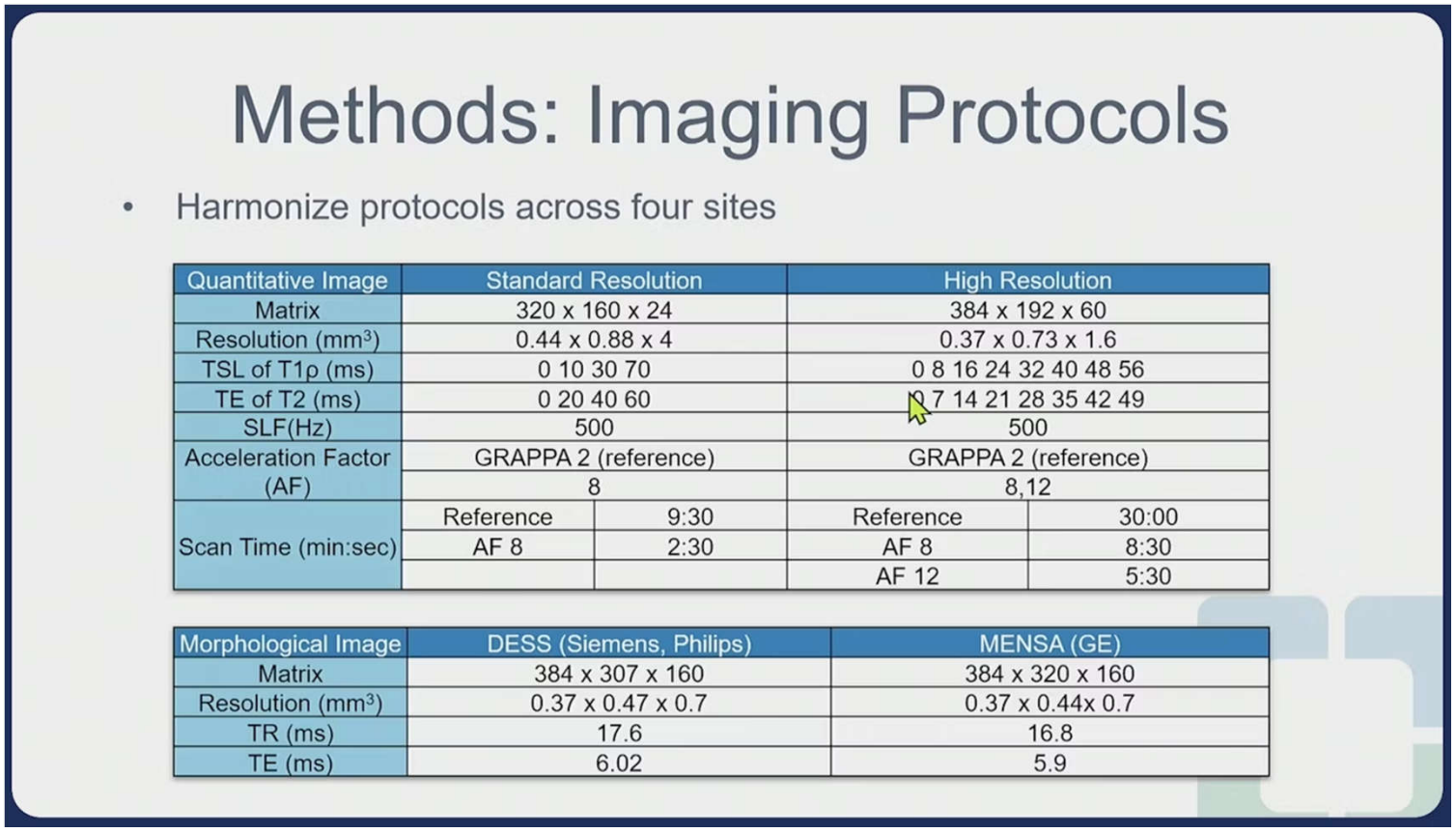
- A novel knee cartilage relaxometry MR imaging technique provides a reliable and reproducible way to assess cartilage degeneration and could pave the way for better early detection, monitoring, and outcomes related to osteoarthritis, according to findings presented May 15 at the International Society for Magnetic Resonance in Medicine (ISMRM) 2025 annual meeting.
- The technique demonstrated excellent agreement between the accelerated high-resolution imaging and the reference, noted the team working on the multivendor, multisite project that included the Cleveland Clinic, New York State University at Buffalo, University of California, San Francisco, Albert Einstein College of Medicine, and the University of Kentucky.
- In a continuation of a previous project, the team said they have harmonized their model to minimize intrasite, intervendor variability to less than 5%. The work addresses needs around early detection of osteoarthritis (OA), such as a sensitive tool to monitor disease progression and treatment response.
- "MRI [T1-rho] T1ρ and T2 relaxation times have been suggested as promising biomarkers for early detection of OA; however, this technique is limited to relatively low resolution," explained Zhiyuan Zhang from the Program of Advanced Musculoskeletal Imaging (PAMI) at the Cleveland Clinic in Ohio.
- To achieve high resolution, long scan time is needed, Zhang added, saying that the team's previous work showed that compressed sensing reconstruction not only reduced scan time but preserved image quality and quantitative accuracy.

Now evaluating their technique in a multisite, multivendor study, Zhang and colleagues used a 3D MAPSS [magnetization-prepared angle-modulated partitioned k-space spoiled gradient echo snapshots] sequence on three 3-tesla MR scanners: Prisma by Siemens Healthineers with a 15-channel knee coil, Signa Premier by GE HealthCare with an 18-channel knee coil, and Ingenia by Philips with a 16-channel knee coil.



In all, 35 volunteers underwent scanning at four sites around the U.S., plus five volunteers traveled around the country undergoing scans of their knees at all four sites.

Zhang noted harmonized protocols for the study was an essential aspect to achieve high reproducibility across sites and vendors.



Quantitative Image	Standard Resolution		High Resolution	
Matrix	320 x 160 x 24		384 x 192 x 60	
Resolution (mm^3)	0.44 x 0.88 x 4		0.37 x 0.73 x 1.6	
TSL of T1ρ (ms)	0 10 30 70		0 8 16 24 32 40 48 56	
TE of T2 (ms)	0 20 40 60		0 7 14 21 28 35 42 49	
SLF(Hz)	500		500	
Acceleration Factor (AF)	GRAPPA 2 (reference)		GRAPPA 2 (reference)	
	8		8,12	
Scan Time (min:sec)	Reference	9:30	Reference	30:00
	AF 8	2:30	AF 8	8:30
			AF 12	5:30

Morphological Image	DESS (Siemens, Philips)	MENSA (GE)
Matrix	384 x 307 x 160	384 x 320 x 160
Resolution (mm^3)	0.37 x 0.47 x 0.7	0.37 x 0.44x 0.7
TR (ms)	17.6	16.8
TE (ms)	6.02	5.9

Reference images were reconstructed using GRAPPA [generalized autocalibrating partially parallel acquisitions] and coil sensitivity maps to generate coil-combined images, the team noted. Accelerated images were reconstructed with compressed sensing using spatiotemporal finite difference transform.

Intrasite coefficients of variation (CVs) were calculated based on the mean compartment values for comparisons between reference and accelerated images, scan and rescan, and standard versus high resolutions, according to the group. Intersite CVs were also calculated based on the mean compartment values.

For their statistical analysis, the team evaluated the following aspects using CVs based on the mean compartment values:

1.Agreement of T1ρ and T2 quantifications between the reference and accelerated images.

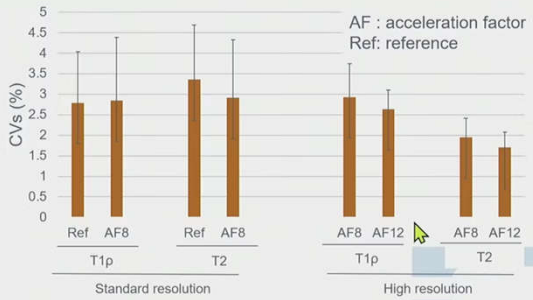
2.Repeatability of T1ρ and T2 quantifications using the scan-rescan images

3.Intersite reproducibility and variations of T1ρ and T2 quantifications

Overall, between reference and accelerated images, the CV was 4.5 for the standard resolution and 2.6 for the high resolution, Zhang noted. "High resolution has a better CV which indicates having a large matrix size is favorable for the compressed sensing reconstruction," Zhang said.

Results: Intra-site Repeatability

- Excellent scan-rescan repeatability with CV 3%.
  - Comparable or better to previous study[1]

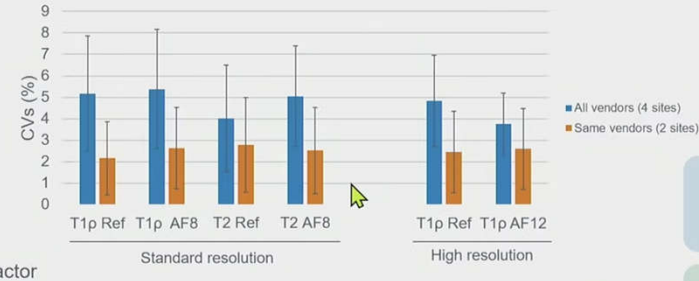


[1] MacKay, J W et al., Osteoarthritis and cartilage 2018

Especially with high resolution with high acceleration factor (AF) of 12, the technique still preserved very good agreement with reference images which shows robustness at higher acceleration imaging, Zhang said.

Results: Inter-site Reproducibility

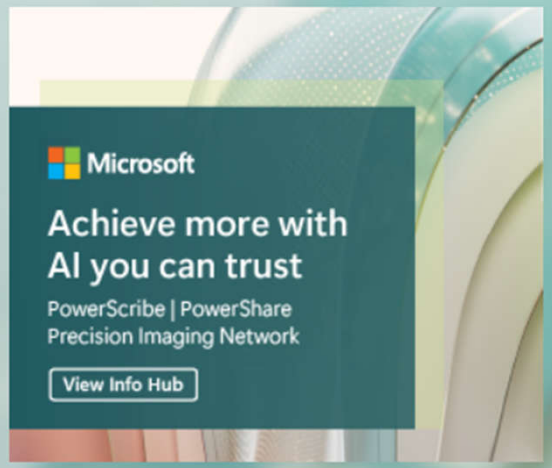
- Overall good reproducibility with inter-site CVs 5%
  - Previous paper showed inter-site CVs over 10%[1,2].



AF : acceleration factor
Ref: reference

[1] Kim, J et al, Osteoarthritis and cartilage, 2020
[2] MacKay, J W et al., Osteoarthritis and cartilage 2018

- The scan-rescan repeatability of accelerated images for both standard- and high-resolutions were reported to be excellent with a CV of 3%, which is comparable or better than previous studies.
- Zhang also noted "good reproducibility" between sites and vendors with a CV of 5%, which is significantly improved from the previous study, which reported CV of 10%.
- Notably, the technique reduced scan time to 2 minutes, 30 seconds (approximately 70% reduction) for standard resolution imaging and to 5 minutes, 30 seconds (approximately 85% reduction) at high resolution, Zhang said.
- "This technique holds promise for improving the early detection and monitoring of cartilage degeneration, ultimately leading to better patient outcome," Zhang concluded.



CLINICAL NEWS | WOMENS IMAGING

BRAID study shows promise for imaging dense breasts; experts sound off

- Abbreviated MRI and contrast-enhanced mammography (CEM) may be the best supplemental imaging methods for women with dense breasts, a study published May 21 in *The Lancet* found.
- A team led by Fiona Gilbert, MD, from the University of Cambridge in England found that both modalities detected three times as many invasive cancers compared with automated breast ultrasound (ABUS). And cancers detected by MRI and CEM were found at half the size of those detected by ABUS.
- "I think probably the most pleasing of our findings is that we now have a choice we can offer women with dense breast tissue," Gilbert told *AuntMinnie*.
- Since the initial publication of results from the Dense Tissue and Early Breast Neoplasm Screening (DENSE) trial, women with dense breasts have been recommended for supplemental MRI along with their regular mammography exams. However, conventional MRI has its logistical and access barriers that may hinder some patients from receiving their supplemental imaging.
- The Breast screening Risk Adapted Imaging for Density (BRAID) study is a randomized controlled trial taking place at 10 U.K.-based breast screening sites. For the study, women ages 50 to 70 were independently assigned to either abbreviated MRI, ABUS, CEM, or full-field digital mammography (standard of care). The researchers included women who had negative mammograms and dense breasts.
- Gilbert and colleagues reported interim results from the first round of supplemental imaging for the BRAID study. These interim results included data collected between 2019 and 2024 from 6,305 study participants who completed supplementary imaging. From the total, 2,130 underwent abbreviated MRI, 2,141 completed ABUS exams, and 2,035 underwent CEM.

- *Fiona Gilbert, MD, explains the results of the BRAID trial for women with dense breasts.*
- Abbreviated MRI and CEM had the highest cancer detection rates of the modalities included, with each also finding more invasive cancers than ABUS. However, ABUS led to lower recall and biopsy rates.

Comparison between supplemental breast imaging modalities in BRAID study			
Measure	ABUS	Abbreviated MRI	CEM
Cancer detection rate (per 1,000 exams)	4.2	17.4	19.2
Invasive cancer detection rate (per 1,000 exams)	4.2	15	15.7
Recall rate	4%	9.7%	9.7%
Biopsy rate	1.5%	4.9%	4.4%

The team reported one case of extravasation in the abbreviated MRI arm, no adverse events in the ABUS arm, and 24 iodinated contrast reactions in the CEM arm. For the latter, this included 17 minor events, six moderate, one severe case, and three extravasations.

Gilbert said the abbreviated MRI results replicate those of the DENSE trial and that CEM can also match these results.

“In many respects, CEM is more easily delivered within breast units, because often MRI scanners are in the hospitals and it’s more difficult to get breast imaging slots for those machines,” she told *AuntMinnie*.

- Gilbert said the team is looking at a more stratified approach to measure breast cancer risk for these women, which may include patient questionnaires and polygenic risk scoring via genetic testing. It is also working on follow-up data to measure potential interval cancers in the BRAID study.
- *Gilbert explains how radiologists can help better measure cancer risk from breast density.*

What others are saying

- The BRAID study results have caught the attention of leading breast imaging researchers, educators, and advocates.
- Joann Pushkin and Wendie Berg, PhD, cofounders of DenseBreast-info.org, reiterated that a standard mammogram is not enough for women with dense breasts and that "the debate is over."
- "Denying women with dense breasts supplemental screening results in an unconscionable number of undetected cancers and, in the U.K., creates a potential 3,500 family tragedies in the form of late-stage diagnoses," Pushkin told *AuntMinnie*.
- "It is important that nearly 90% of the women in this trial were of otherwise average risk for breast cancer," Berg said. "Increased cancer detection was accompanied by a nearly 10% recall rate for contrast methods. There was also a 1.2% rate of contrast reactions in the women receiving iodinated contrast for CEM. These factors need to be considered. CEM is not currently FDA-approved for screening."
- And Linda Moy, MD, from NYU Langone Health in New York, said that despite the tradeoffs seen in recall rates, the results mean good news for women with dense breasts.
- "If women want to have supplemental screening, they should have either of the contrast imaging tests that are rapidly being provided at many facilities," said Moy, who also serves as immediate past president of the Society of Breast Imaging and editor of the RSNA journal, *Radiology*.

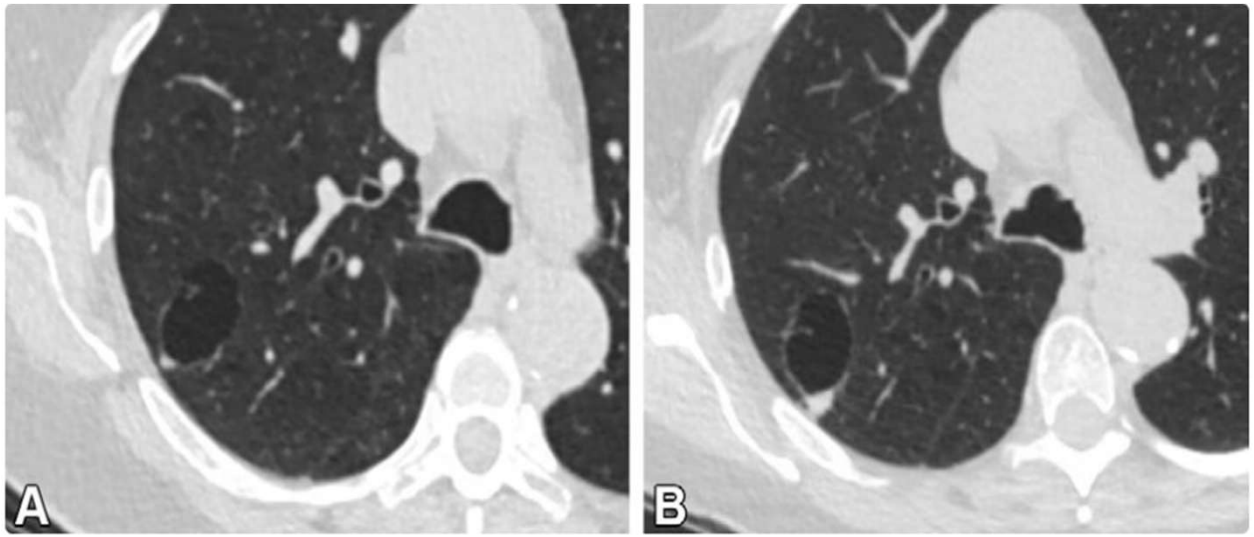
CLINICAL NEWS | CT

CT reveals that cystic lung lesions on LCS increase malignancy risk

Kate Madden Yee
May 20, 2025

- Cystic lung lesions with nodular wall thickening -- often identified on low-dose CT (LDCT) lung cancer screening (LCS) -- are associated with increased risk of malignancy, researchers have reported.
- The study findings clarify the behavior of these particular lesions and could help determine patient follow-up and treatment strategies, wrote a team led by Suzanne C. Byrne, MD, of Brigham and Women's Hospital in Boston. The results were published May 20 in *Radiology*.
- "The results of this study confirm many recommendations from [Lung-RADS] and may help in making decisions for high-risk patients not in lung cancer screening programs," the group noted.
- Lung cancer is the leading cause of cancer death for both men and women in the U.S., and it primarily manifests as a mass or nodule, the group explained. Less commonly, it appears as a cystic lesion with wall thickening and/or a solid or ground-glass nodular characteristic. Although diagnosis of this type of lung cancer presentation has increased -- due to clinician awareness and an expanded pool of individuals eligible for LCS -- there continues to be a lack of consensus on the risk of malignancy and cystic lung lesions, according to Byrne and colleagues.
- The team set itself the task of evaluating imaging characteristics associated with the risk of malignancy of cystic lung lesions in an LCS program via a study that included 15,762 CT lung cancer screening exams performed between January 2015 and July 2023. Readers reviewed baseline CT images and recorded lesion morphologic characteristics and size; follow-up CT exams were evaluated for changes in the lesions.
- Among the total number of exams, 235 (1.4%) showed cystic lung lesions. Of these, 33 (14%) resulted in a diagnosis of lung cancer that arose from these lesions.

- The group reported the following:
- Increased risk of cancer was associated with nodular wall thickening (odds ratio [OR], 11, with 1 as reference; $p = 0.002$) and the presence of a solid nodule (OR, 5.3; $p < 0.001$) alone or in combination with a ground-glass component (OR, 24; $p < 0.001$).
- There were no cases of malignancy in cystic lesions without wall thickening (n = 46).
- Lesion growth or increase in complexity over time was associated with an increased risk of malignancy ($p < 0.001$).
- Median time to cancer diagnosis was 482 days, and 28 out of 33 cancers detected (85%) were stage 0 or I.



CT images in a 74-year-old female patient. (A) Axial image from a lung cancer screening shows a 3.1 cm by 2 cm unilocular cystic lesion with a 0.5 cm solid nodular component in the right upper lobe. The overall size of the lesion and solid nodular component ultimately grew. (B) Follow-up CT image obtained 37 months later, before resection, shows a 3.5 cm by 2.4-cm lesion with a 0.8-cm solid component. This lesion was pathologically proven to be invasive adenocarcinoma. Images and caption courtesy of the RSNA.

The findings further illuminate the characteristics of this specific manifestation of lung cancer, according to the authors.

"Cystic lung lesions, particularly those with nodular wall thickening, have an increased risk of malignancy," they concluded. "Notably, most of these patients were diagnosed at an early cancer stage and after a long time, suggesting that most cystic lung lesions have indolent behavior. It may be possible to manage these lesions similarly to subsolid nodules, with surveillance until there is a new or enlarging solid component."

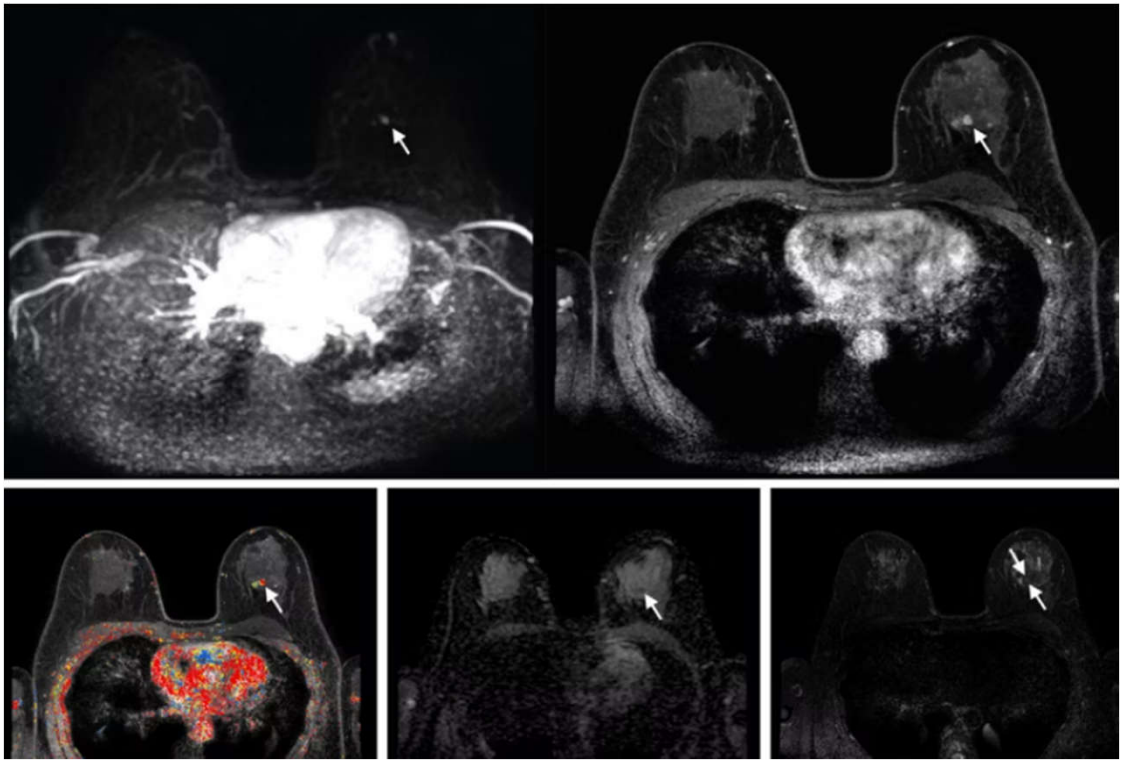
CLINICAL NEWS | WOMENS IMAGING

Abbreviated MRI suffices in imaging dense breasts

Amerigo Allegretto
May 20, 2025

- Abbreviated MRI may be feasible as a first-round screening method for women with extremely dense breasts, according to research published May 20 in *Radiology*.
- A team led by Wouter Veldhuis, MD, PhD, from University Medical Center Utrecht in the Netherlands found that this approach led to high diagnostic accuracy that was comparable to that of the full multiparametric protocol, and with shorter reading and scanning times.
- "Our results suggest that in a screening setting, an ultrashort, under five-minute acquisition time, dynamic contrast enhanced-only protocol suffices, showing that the additional sequences, including diffusion-weighted imaging [DWI], T2-weighted imaging, and delayed post-contrast T1-weighted images and curve kinetics, do not provide additional diagnostic information for making a recall/no-recall decision," Veldhuis told *AuntMinnie*.
- The Dense Tissue and Early Breast Neoplasm Screening (DENSE) trial, which took place from 2011 to 2016, showed that supplemental MRI screening lowered interval cancer rates in women with dense breasts. Since then, imaging societies have recommended that supplemental MRI be used to further screen women with dense breasts.
- However, issues tied to cost, capacity, and accessibility have limited the modality's clinical utility in this area. The researchers highlighted that shorter MRI protocols could help minimize costs while delivering high-quality image results.
- Veldhuis and colleagues compared the diagnostic accuracy of different abbreviated screening breast MRI protocols with that of the full multiparametric protocol in the DENSE trial. They focused on identifying the minimal protocol needed to maintain high diagnostic accuracy.

- For the study, seven radiologists performed incremental readings of first-round screening MRI scans in women with extremely dense breasts. The women's findings were negative for cancer at mammography.
- The researchers added different sequences in four incremental steps. The first step included both high-temporal low-spatial and low-temporal high-spatial dynamic T1-weighted series, up to 120 seconds after contrast agent injection. The final step added all full-protocol sequences.



Abbreviated axial MRI images show a 7-mm irregular mass with irregular margin (arrows) in the right upper inner quadrant with early rapid enhancement (BIRADS 4). The participant was recalled and underwent an MRI-guided vacuum-assisted biopsy that showed sclerosing adenosis with microcalcifications and usual ductal hyperplasia and focal apocrine metaplasia. On the full-protocol images (not shown), the lesion was T2-weighted hypointense and showed diffusion restriction and washout kinetics in the delayed phase, characteristics that would not have reversed the decision to recall the participant.

- The first-round screening included 518 MRI scans from 518 women with a median age of 53. This included 83 breast cancers, 68 of which were invasive and 15 were ductal carcinomas in situ (DCIS) cases.
- The team reported that the abbreviated protocol led to shorter scanning and reading times while maintaining sensitivity and specificity values comparable to those of the full protocol.

Comparison between abbreviated, full screening breast MRI protocols

Measure	Full multiparametric protocol	Abbreviated protocol	p-value
Sensitivity	85.9%	84.3%	0.68
Specificity	75.8%	73.9%	0.39
Reading time	96.4 seconds	49.7 seconds	< 0.00

And depending on the scanner vendor, the abbreviated protocol led to scanning times decreasing by 70% to 80%, the team found.

Velduis said that reducing the exam time and noise levels could improve the patient experience, which may increase screening participation rates.

- “More importantly, with respect to access, abbreviated breast MRI provides a faster alternative to conventional MRI while still maintaining high diagnostic accuracy for making a recall/no-recall decision,” he told *AuntMinnie*. “These shorter reading and scan times may allow implementation of MRI in national screening programs, making it available for all women with dense breasts.”
- Veldhuis added that the team has started the multicenter randomized-controlled DENSE-2 trial together with 15 hospitals across the Netherlands. In this national population-based screening program, women with dense breasts will undergo both abbreviated MRI and contrast-enhanced mammography after a negative screening mammogram. The researchers are focusing on interval cancer rates, additional cancer detection rates, false positive rates, and tumor stage distribution for women undergoing either modality.
- Having such evidence for a concise protocol would move the imaging field forward in delivering efficient and effective patient care, according to an accompanying editorial written by Masako Kataoka, MD, PhD, and Maya Honda, MD, PhD, from Kyoto Medical University in Japan.
- “Combined with improvement in scanning workflow [needle placement, positioning, and scanning], abbreviated MRI can be a feasible option for patients with extremely dense breasts needing supplemental screening,” the duo wrote.
- They highlighted that the research “adds a valuable piece to the ongoing conversation on how best to optimize breast MRI screening.”

Beyond medical imaging with

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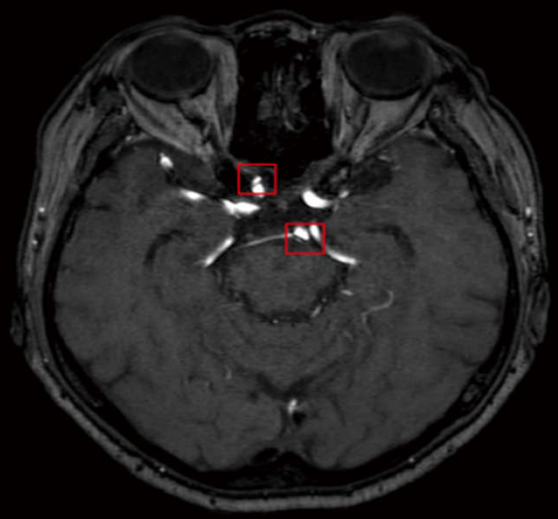


Detection of suspected cerebral aneurysm

Saccular unruptured cerebral aneurysms and multiple cerebral aneurysms are detected through AI and displayed with Bounding Boxes.

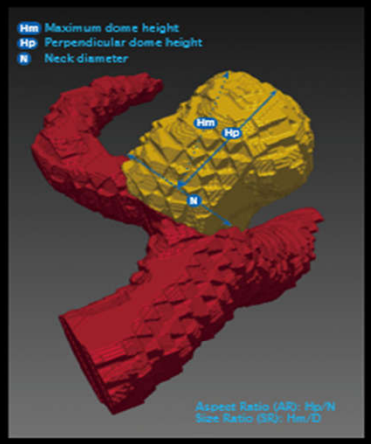
Sensitivity	91.11%
Specificity	93.91%

- source: Severance Hospital, Seoul

FEATURES

Aneurysm Measurement

DEEP:NEURO provides precise size and volume data that reflect the morphological characteristics of cerebral aneurysms, which can lead to a more reliable interpretation of the disease.



PHASES Score

DEEP:NEURO provides a PHASES Score* which can predict the rupture risk of cerebral aneurysm. PHASES Score can be used for supporting treatment decisions and follow-up plans.

5-year risk of Aneurysm Rupture according to PHASES Score[1]

~4	≤ 1.0%	5~9	≤ 5%
10, 11	≤ 10%	12~	≥ 17.8%

* A tool for assessing the 5-year rupture risk of intracranial aneurysm, calculated based on population, hypertension, age, size of the aneurysm, earlier subarachnoid hemorrhage, and site of the aneurysm.

Aneurysm Localization

DEEP:NEURO provides the localization information of the detected cerebral aneurysm. The location of the cerebral aneurysm helps predict the risk of rupture and can be utilized as a key component when establishing a treatment plan.

Provided vessels

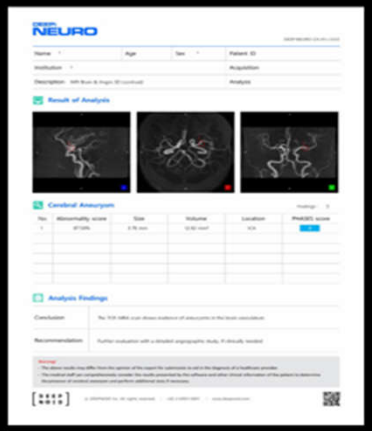
- ACA (Anterior Cerebral Artery)
- BA (Basilar Artery)
- ICA (Internal Carotid Artery)
- MCA (Middle Cerebral Artery)
- PCA (Posterior Cerebral Artery)
- SCA (Superior Cerebellar Artery)

Analysis Report

DEEP:NEURO provides a image analysis report with evaluation result, contributing to an enhanced medical workflow environment.

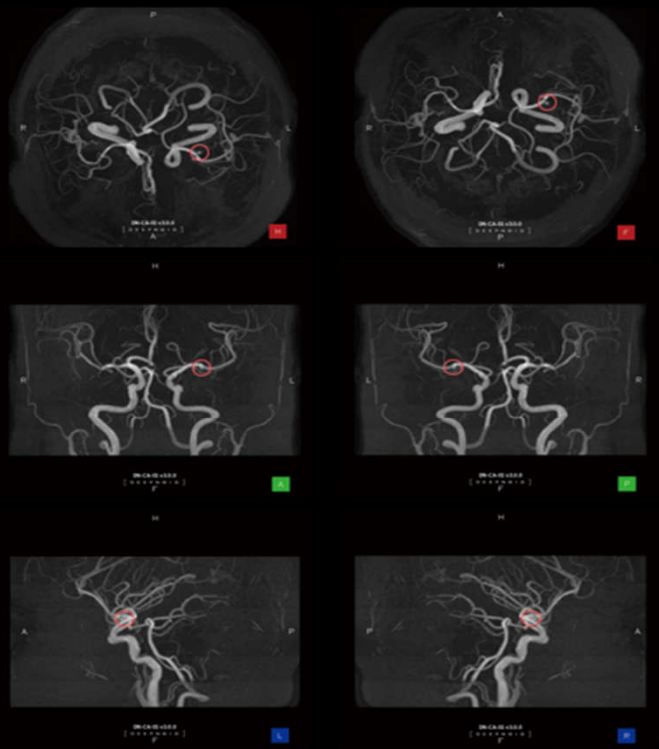
Key Data Provided

- MIP images with detected cerebral aneurysm (3 directions)
- AI Confidence Score
- 3D Size
- 3D Volume
- Location
- PHASES Score



Improved efficiency and accuracy of diagnosis using 3D imaging

By converting the cerebrovascular data analyzed with AI into 3D MIP images, DEEP:NEURO enhances the diagnostic accuracy of medical provider. The user can experience more convenience with the directional and 3D orientation markers.



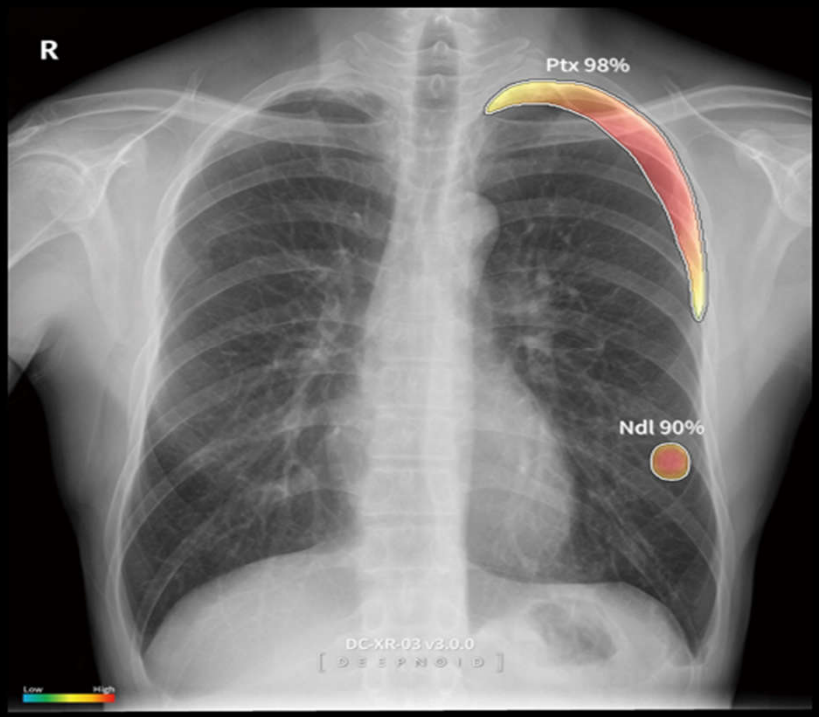
Provides an optimal environment for diagnosis through GSPS*

The detected area is displayed as an overlay on the original image. This facilitates the resolution of issues associated with image quality or size, and thereby enhances the efficiency of the integrated PACS.

* Grayscale Softcopy Presentation State

DEEP:CHEST

AI Solution for Multiple Lung Disease



Detects suspected lung disease area from chest X-ray images

Detection of Consolidation, Pneumothorax, Fibrosis, Nodule/Mass, and Pleural Effusion findings

DEEP:CHEST provides an AI analysis results in three types (Heatmap, Grayscale Contour, Combined) according to user settings.

Consolidation: CSN

Sensitivity	87.00%
Specificity	93.60%

- source: SMG-SNU Boramae Medical Center, Seoul
Pusan National University Hospital, Busan

Pneumothorax: PTX

Sensitivity	94.40%
Specificity	99.63%

- source: SMG-SNU Boramae Medical Center, Seoul
Pusan National University Hospital, Busan

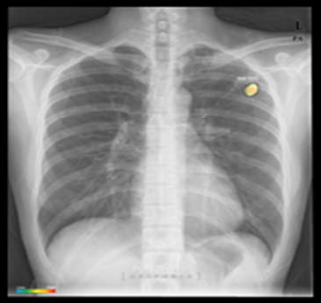
Fibrosis: FIB

Sensitivity 88.10%

Specificity 99.56%

- source: Chung-Ang University Hospital, Seoul

Nodule-Mass: NDL

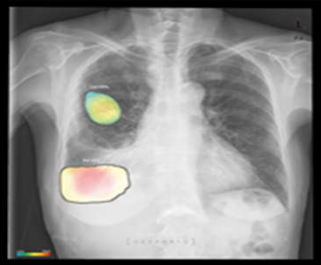


Sensitivity 83.41%

Specificity 94.95%

- source: Chung-Ang University Hospital, Seoul

Pleural Effusion: PEF



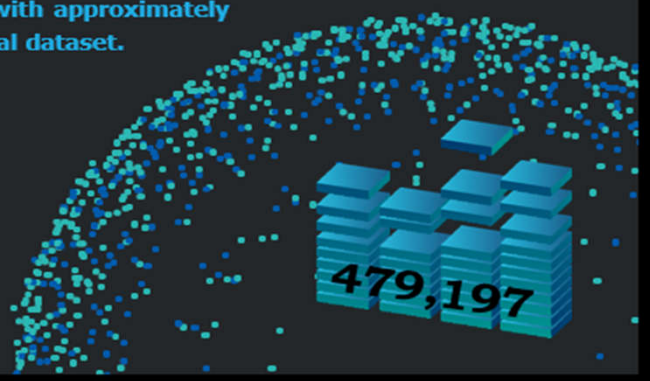
Sensitivity 87.08%

Specificity 99.58%

- source: Chung-Ang University Hospital, Seoul

FEATURES

High accuracy of diagnosis is achieved with approximately 479K global dataset.

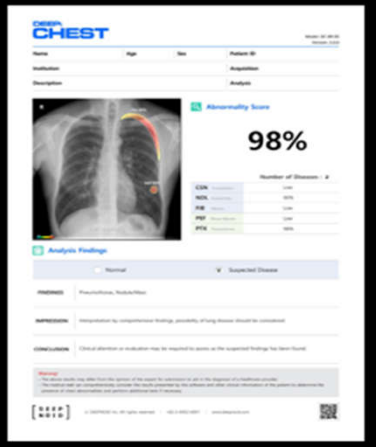


Analysis Report

DEEP:CHEST provides a image analysis report with evaluation result, contributing to an enhanced medical workflow environment.

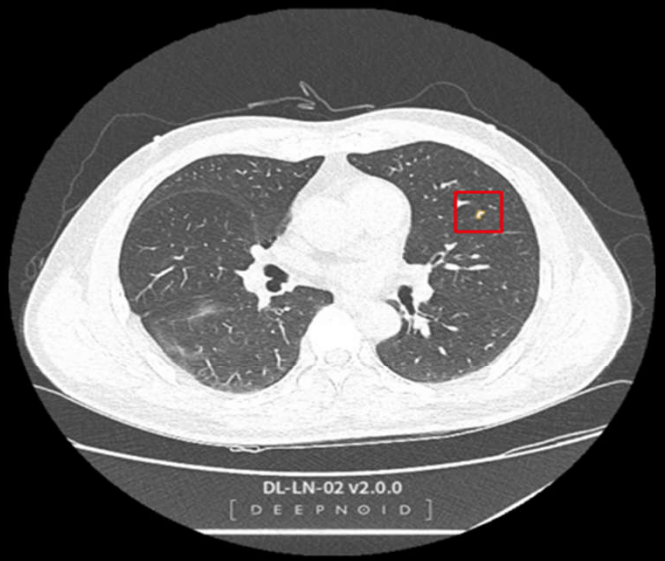
Key Data Provided

- Number of detected abnormalities
- Highest probability value among detected abnormalities
- Highest probability value by indication among detected abnormalities
- Types of detected indications



DEEP:LUNG

AI Solution for Lung Nodule/Mass



Detects lung nodule/mass from low-dose CT images

Suspected pulmonary nodules are detected through AI and shown as Bounding Boxes.

Sensitivity	91.38%
Specificity	93.08%

- source: Pusan National University Hospital, Busan / Pusan National University Yangsan Hospital, Yangsan / Chonnam National University Hospital, Gwangju

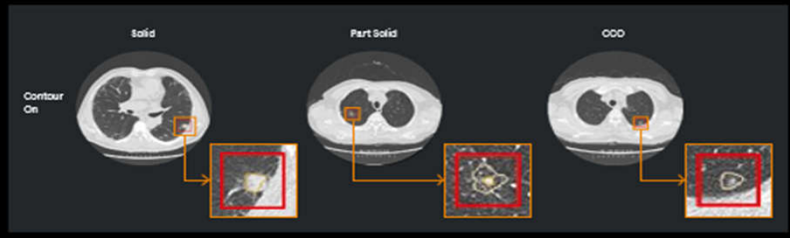
FEATURES

Malignancy risk estimation of pulmonary nodules

DEEP:LUNG supports Lung-RADS Score and Calcification classification for estimating the malignancy risk of pulmonary nodules based on size, shape, growth, and other factors.

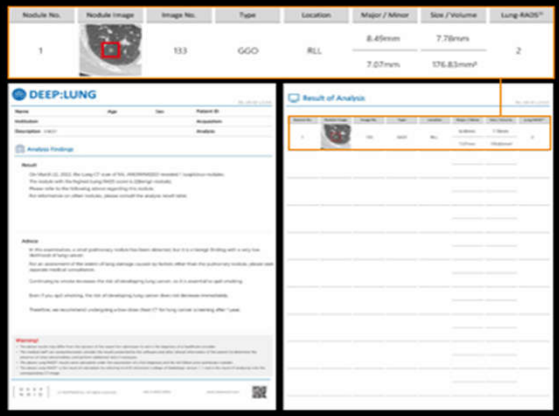
Intuitive Diagnosis

DEEP:LUNG enables a more intuitive reading by categorizing the texture of detected nodules into Solid, Part Solid, GGO and by showing different contour colors for each type.



Analysis Report

DEEP:LUNG provides a image analysis report with evaluation result, contributing to an enhanced medical workflow environment.

Key Data Provided

- Lung-RADS Score
- Calcification
- Texture