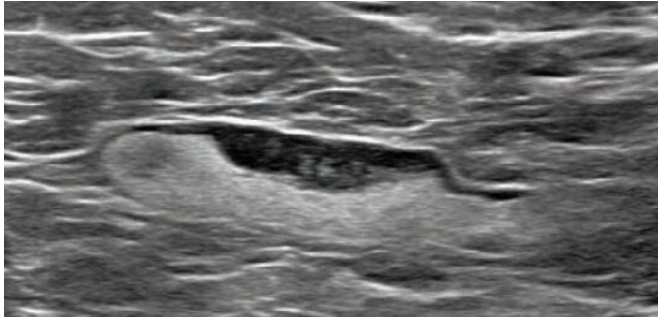


COVID-19 vaccination axillary adenopathy detected during breast imaging

24 February 2021



Screening mammogram and US demonstrated unilateral left axillary lymph node with cortical thickness of 5 mm on ultrasound (not shown). BI-RADS category 0 was assigned. Ultrasound from diagnostic work-up performed 7 days later showed no change in lymph node size. BI-RADS 3 was assigned. Credit: American Roentgen Ray Society (ARRS), *American Journal of Roentgenology* (AJR)

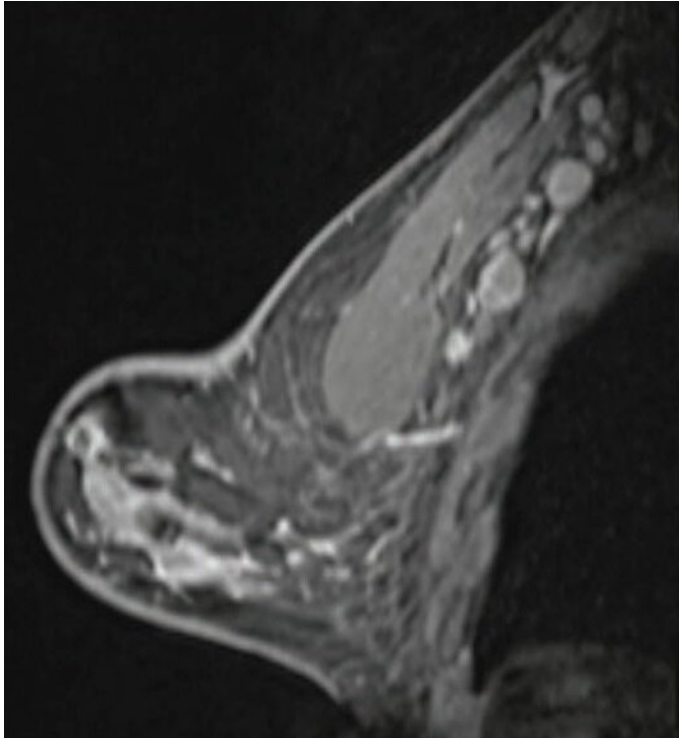
An open-access article in ARRS' *American Journal of Roentgenology* (AJR) describes the clinical and imaging features of axillary adenopathy detected during screening or diagnostic breast imaging after recent coronavirus disease (COVID-19) vaccination to inform the development of follow-up recommendations.

Shabnam Mortazavi of the University of California at Los Angeles reviewed [electronic medical records](#) to identify women with post-COVID-19 vaccination adenopathy found from December 2020 to February 2021. For mammography, Mortazavi considered a node abnormal when its size, shape, or density was deemed disproportionate to other axillary nodes (ipsilateral or contralateral). On ultrasound, she deemed a node abnormal based on subjective assessment for cortical abnormalities, including focal or diffuse thickening greater than 3 mm, as well as nodal prominence compared to the contralateral axilla (when available). For MRI, Mortazavi considered a

node abnormal when asymmetric in size and/or number to the contralateral axilla.

Twenty-three women exhibited axillary adenopathy ipsilateral to the vaccinated arm on [screening](#) or diagnostic breast imaging, and according to Mortazavi, "13% were symptomatic (axillary lump with possible tenderness)." Meanwhile, the adenopathy was detected incidentally on screening breast imaging in 43% (mammography, 5; ultrasound, 2; both mammography and ultrasound, 1; high-risk screening MRI, 2) and on [diagnostic imaging](#) for other reasons in 43% (BI-RADS 3 follow-up for breast finding, 3; screening callback for other reason, 2; non-axillary breast pain or lump, 5). Noting that the median interval between the first vaccine dose and imaging showing the abnormal node was 9.5 days, Mortazavi's results counted a total of 57% of women with one abnormal node. BI-RADS 2 was assigned in one woman, BI-RADS 3 in 21 (ultrasound in 4-24 weeks), and BI-RADS 4 in one.

"The largest sample to our knowledge of COVID-19 vaccine associated axillary adenopathy on imaging," Mortazavi also wrote, "this study highlights axillary adenopathy ipsilateral to the vaccinated arm with Pfizer-BioNTech or Moderna COVID-19 vaccine as a potential reactive process with which radiologists must be familiar." Ultimately, vaccination date and laterality are critical to optimize assessment and management of imaging-detected axillary adenopathy in women with otherwise normal [breast](#) imaging.



Sagittal T1-weighted fat-saturated contrast-enhanced MRI shows extensive unilateral left level I-II axillary adenopathy. BI-RADS 3 was assigned. Credit: American Roentgen Ray Society (ARRS), *American Journal of Roentgenology* (AJR)

More information: Shabnam Mortazavi, Coronavirus Disease (COVID-19) Vaccination Associated Axillary Adenopathy: Imaging Findings and Follow-Up Recommendations in 23 Women, *American Journal of Roentgenology* (2021). [DOI: 10.2214/AJR.21.25651](https://doi.org/10.2214/AJR.21.25651)

Provided by American Roentgen Ray Society
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