ORIGINAL ARTICLE ■ *Clinical Practice Management*

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Unilateral Lymphadenopathy After COVID-19 Vaccination: A Practical Management Plan for Radiologists Across Specialties

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Abstract

Reports are rising of patients with unilateral axillary lymphadenopathy, visible on diverse imaging examinations, after recent coronavirus disease 2019 vaccination. With less than 10% of the US population fully vaccinated, we can prepare now for informed care of patients imaged after recent vaccination. The authors recommend documenting vaccination information (date[s] of vaccination[s], injection site [left or right, arm or thigh], type of vaccine) on intake forms and having this information available to the radiologist at the time of examination interpretation. These recommendations are based on three key factors: the timing and location of the vaccine injection, clinical context, and imaging findings. The authors report isolated unilateral axillary lymphadenopathy (i.e., no imaging findings outside of visible lymphadenopathy), which is ipsilateral to recent (prior 6 weeks) vaccination, as benign with no further imaging indicated. Clinical management is recommended, with ultrasound if clinical concern persists 6 weeks after the final vaccination dose. In the clinical setting to stage a recent cancer diagnosis or assess response to therapy, the authors encourage prompt recommended imaging and vaccination (possibly in the thigh or contralateral arm according to the location of the known cancer). Management in this clinical context of a current cancer diagnosis is tailored to the specific case, ideally with consultation between the oncology treatment team and the radiologist. The aim of these recommendations is to (1) reduce patient anxiety, provider burden, and costs of unnecessary evaluation of enlarged nodes in the setting of recent vaccination and (2) avoid further delays in vaccinations and recommended imaging for best patient care during the pandemic.

Key Words: Lymphadenopathy, COVID-19, vaccination, primary health care, oncology

J Am Coll Radiol 2021;18:843-852. Copyright © 2021 American College of Radiology

BACKGROUND OF COVID-19 VACCINATION

The first coronavirus disease 2019 (COVID-19) vaccination dose was administered on December 14, 2020, under emergency use authorization from the US Food and Drug Administration, and as of March 5, 2021, more than 82 million doses have been administered in the United States, and 8.4% of the US population has been fully vaccinated [1]. Reactions to the Moderna and Pfizer-BioNTech vaccinations are common, with more than 85% of patients reporting local reactions at the injection site and more than 75% reporting systemic reactions. The most common unsolicited adverse event reported is unilateral "axillary swelling or tenderness" by 10.2% of patients after the first Moderna vaccine and 14.2% of patients after the second Moderna injection. Patients receiving the Pfizer-BioNTech

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Dr Kambadakone receives institutional research support from GE Healthcare, Philips Healthcare, and PanCAN, United States; is an advisory board member for Bayer; and is a speaker and consultant for Philips Healthcare. Dr Lehman receives institutional research support from GE Healthcare, Hologic, the Breast Cancer Research Foundation, and the National Cancer Institute (grant U01CA225451); and is a cofounder of Clairity. Dr Succi receives patent royalties from Frequency Therapeutics and financial compensation as both equity and compensation from 2 Minute Medicine. All other authors state that they have no conflict of interest related to the material discussed in this article.

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1546-1440/21/$36.00 ■ https://doi.org/10.1016/j.jacr.2021.03.001