



Post COVID-19 vaccine adenopathy: first Brazilian report

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A 50-year-old man with a previous neurological deficit presented fever, axillary discomfort in the upper right limb, and a convulsive episode 24 hours after application of the Pfizer-BioNTech COVID-19 vaccine in the right arm. He underwent chest computed tomography (Figures 1. A and B) on the same day, which evidenced axillary fat stranding associated with lymph node enlargement.

Lymphadenopathy was one of the most frequent adverse effects reported after vaccination with the Pfizer-BioNTech and Moderna COVID-19 vaccines, and its imaging findings are well-described.⁽¹⁻³⁾

The Brazilian medical community may have little

familiarity with these findings since the Pfizer vaccine was introduced in the country only in early May.

Such findings may be of concern if misinterpreted as suspicious, particularly in oncologic patients.⁽¹⁻³⁾ Physicians should be aware of the possible occurrence of lymphadenopathy and inquire patients about their recent vaccination. In some cases, such as the patient in question (Figures 1. C and D), comparisons with other recent imaging exams can assist in distinguishing metastatic or reactive axillary lymph nodes. In addition, recent studies reinforce that lymphadenopathy is more commonly described on the same side as the vaccine application site, a fact that could be a clue for its diagnosis.⁽¹⁻³⁾

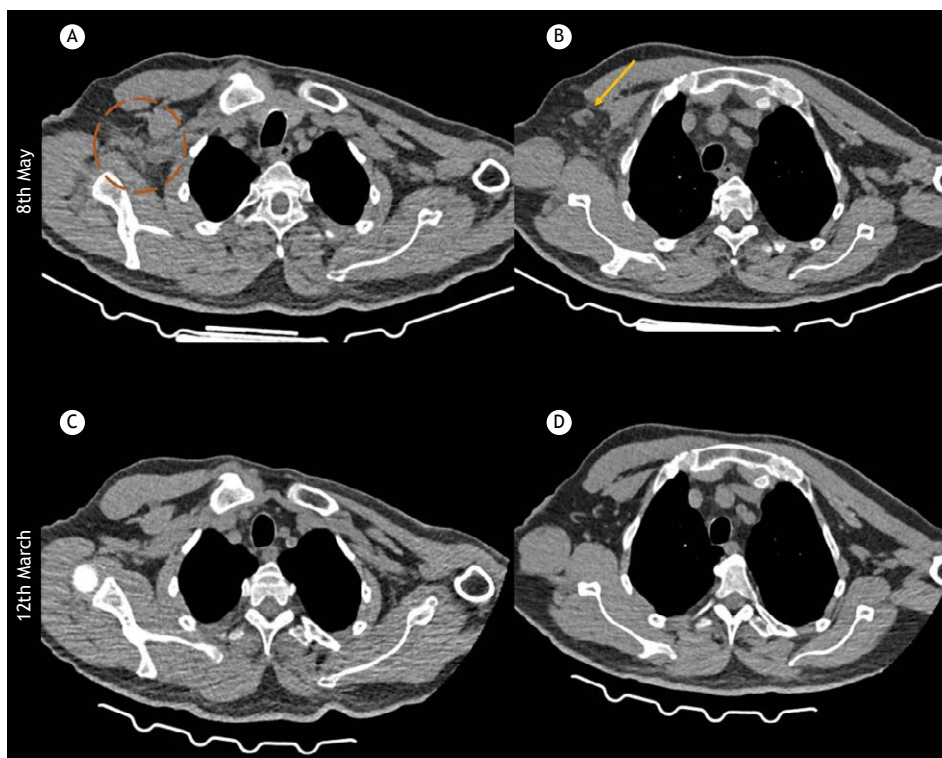


Figure 1. A and B - Axial CT hours after the vaccine, indicating enlarged lymph nodes (arrow) associated with regional fat stranding (circle) in the ipsilateral axillary region of the injection site; C and D - Previous CT of the same patient, approximately 60 days prior to vaccination, showing small axillary lymph nodes with preserved fatty hilum.

REFERENCES

- Özütemiz C, Krystosek LA, Church AL, Chauhan A, Ellermann JM, Domingo-Musibay E et al. Lymphadenopathy in COVID-19 Vaccine Recipients: Diagnostic Dilemma in Oncology Patients. *Radiology*. Jul 2021; 300(1):E296-E300. <https://doi.org/10.1148/radiol.2021210275>.
- Eshet Y, Tau N, Alhoubani Y, Kanana N, Domachevsky L, Eifer M. Prevalence of Increased FDG PET/CT Axillary Lymph Node Uptake Beyond 6 Weeks after mRNA COVID-19 Vaccination. *Radiology*. 27 Apr 2021;210886. <https://doi.org/10.1148/radiol.2021210886>.
- Becker AS, Perez-Johnston R, Chikarmane SA, Chen MM, El Homsy M, Feigin KN et al. Multidisciplinary Recommendations Regarding Post-Vaccine Adenopathy and Radiologic Imaging: Radiology Scientific Expert Panel. *Radiology*. 24 Feb 2021; 210436. <https://doi.org/10.1148/radiol.2021210436>.

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