FDG-Avid Ipsilateral Iliac and Inguinal Lymphadenopathy After COVID-19 Vaccination With Thigh Injection

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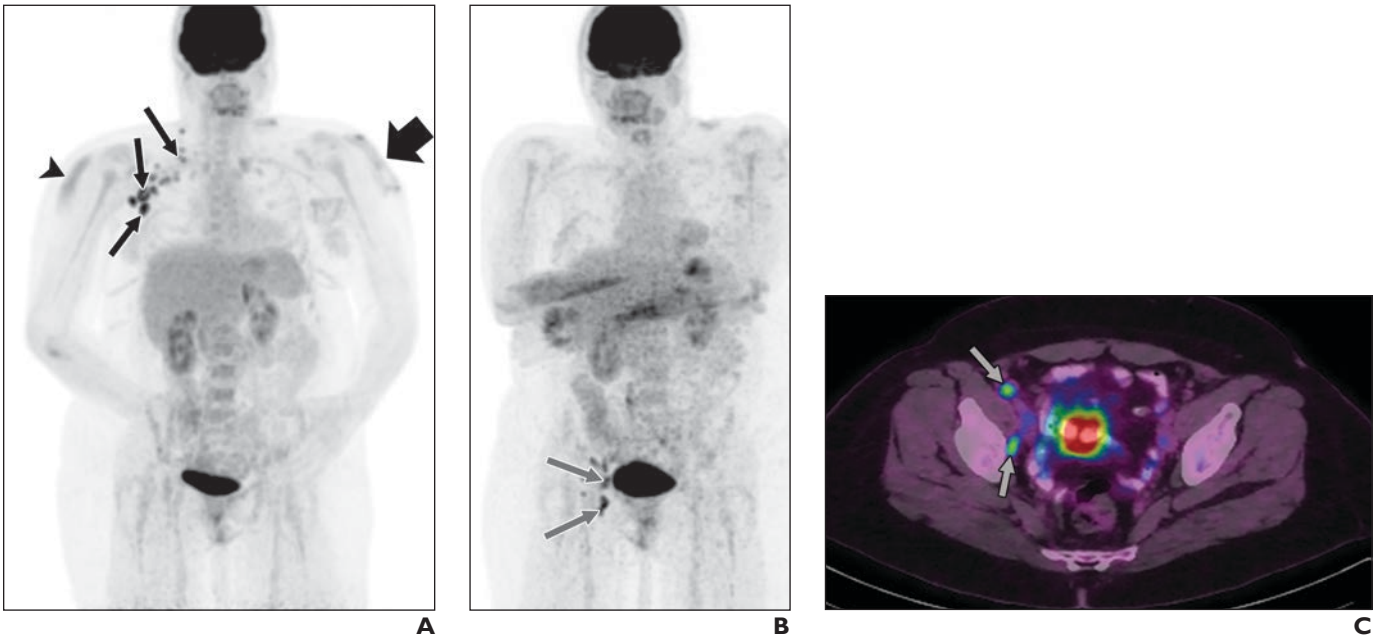

Fig. 1—48-year-old woman who previously underwent resection of melanoma on left shoulder.
A, Coronal maximum-intensity-projection (MIP) PET image from FDG PET/CT examination. Patient had received right deltoid COVID-19 vaccination 6 days before undergoing FDG PET/CT. FDG-avid right supraclavicular and right axillary lymph nodes are present (*thin arrows*). Right deltoid injection site shows mild diffuse uptake (*arrowhead*). Additional superficial uptake in left shoulder (*thick arrow*) corresponds with postsurgical change from melanoma resection.
B and **C,** Coronal MIP PET image (**B**) and axial fused PET/CT image (**C**) from FDG PET/CT performed 3 days after administration of second vaccine dose in right thigh; second dose was administered 4 weeks after first dose. Prior FDG-avid right axillary and supraclavicular lymphadenopathy resolved, indicating that lymphadenopathy had represented vaccine-related uptake. Uptake in left shoulder related to postsurgical change also resolved. New FDG-avid right external iliac and right inguinal lymph nodes are present (*arrows*) and were attributed to administration of second dose in thigh.

A 48-year-old woman underwent initial staging FDG PET/CT after resection of a melanoma on her left shoulder with positive sentinel lymph nodes. The COVID-19 vaccine (mRNA-1273, Moderna) had been administered in her right deltoid 6 days previously. PET/CT showed FDG-avid right axillary and supraclavicular lymph nodes measuring up to 2.5 cm (Fig. 1A). The patient received a second dose of the mRNA-1273 COVID-19 vaccine 4 weeks after she received the first dose and 3 days before she underwent a scheduled restaging FDG PET/CT examination. The second dose was administered in the right thigh given uncertainty as to whether the axillary lymphadenopathy was metastatic or reactive. Restaging PET/CT showed resolution of the FDG-avid right axillary lymphadenopathy but also revealed new FDG-avid right external iliac and inguinal lymph nodes measuring up to 1.3 cm (Figs. 1B and 1C). The prevalence of COVID-19 vaccine–related FDG-avid axillary lymphadenopathy is 29–54% [1, 2]. However, a paucity of literature describes imaging findings after administration of COVID-19 vaccine at alternate sites.

References

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