

SNMMI Statement: The Effect of COVID-19 Vaccination on FDG PET/CT

March 30, 2021

FDG-avid reactive lymphadenopathy on PET/CT has been reported in patients following COVID-19 vaccinations.¹ Reactive lymphadenopathy has been reported in up to 16% of the patients following COVID-19 vaccination with the mRNA (Pfizer/BioNTech, Moderna) vaccines; this side effect has not been reported to date with the AdV vector vaccine (Janssen/Johnson & Johnson).²⁻⁵

Some guidelines recommend delay of imaging by 4-6 weeks following the COVID-19 vaccine (NCCN) if it will not affect patient outcomes.² It is not known at this time if delaying imaging by 6 weeks after the second dose of COVID-19 vaccine is sufficient to ensure resolution of FDG-avid lymphadenopathy.

As with some other vaccinations, such as the influenza vaccine, FDG uptake can also occur at the COVID-19 vaccine injection site. Development of FDG-avid lymphadenopathy is generally ipsilateral to the site of vaccine injection. In addition to the axillary nodes, lymph nodes in the ipsilateral lower internal jugular and supraclavicular stations may also demonstrate FDG uptake. Physicians in the SNMMI COVID-19 Task Force have also anecdotally observed splenomegaly/increased splenic uptake following COVID-19 vaccination. Additional information will be shared on this platform as it becomes available.

The COVID-19 Task Force makes the following recommendations based on the currently available information.

1. Recognize that FDG-avid lymphadenopathy can occur in the axillary (and possibly lower cervical/supraclavicular) station(s) ipsilateral to the site of injection and can be seen for 4–6 weeks or longer after the most recent dose of vaccine.
2. Patient questionnaires should be revised to include information about the date(s) and site(s) of vaccination and which vaccine was administered.
3. For patients with a history of breast and head and neck cancers, the vaccine should be administered in the contralateral arm whenever possible.

References

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