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^{68}GA DOTATATE Uptake in benign axillary lymph nodes

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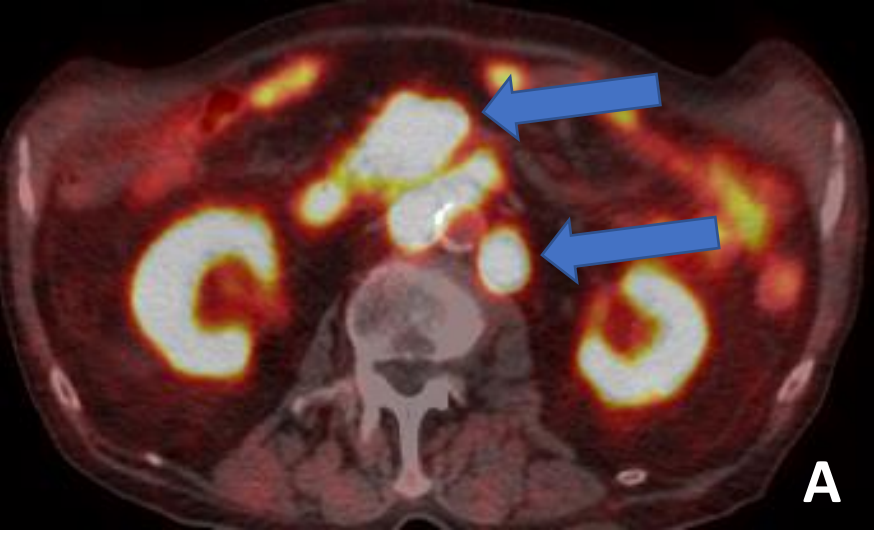
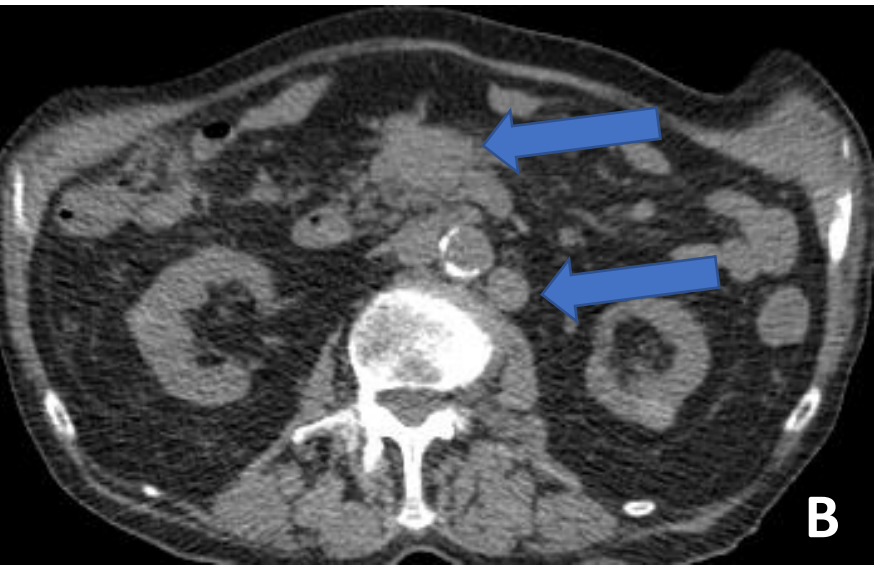
Case presentation

- An 80 yo male with small bowel neuroendocrine tumor treated with surgical resection in 2011.
- Patient was under surveillance for stable metastatic retro-crural, retroperitoneal and mesenteric lymphadenopathy.
- Most recent CT showed interval increase in size of the abdominal lymphadenopathy.
- ^{68}GA DOTATATE was requested for further evaluation.





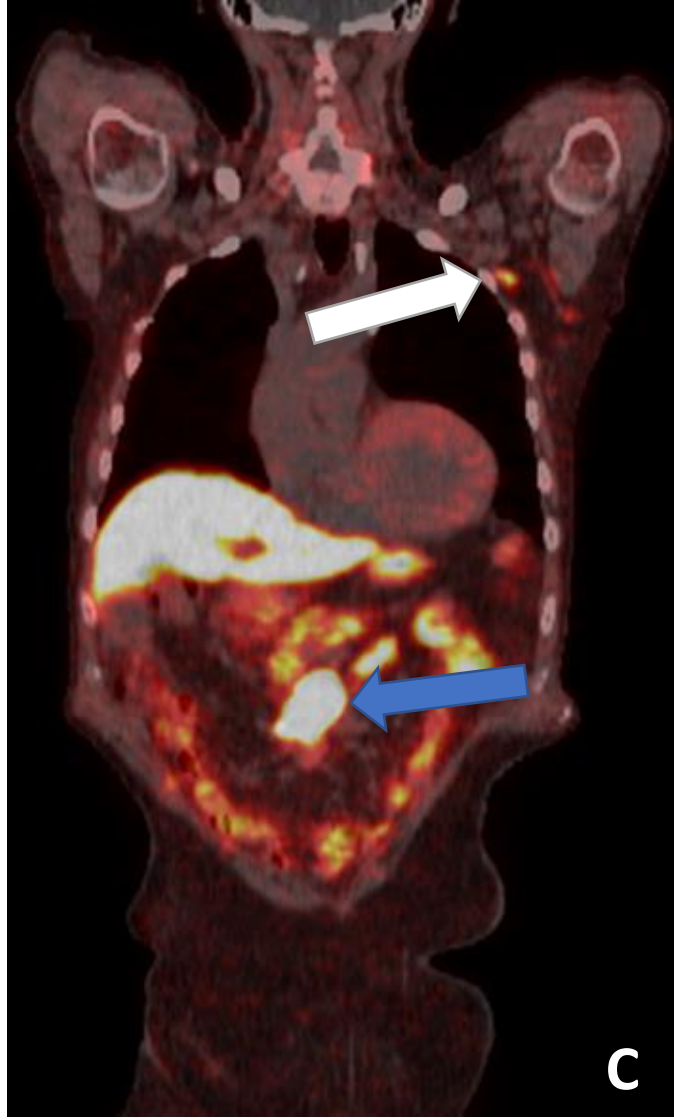


Fig.1: ^{68}GA DOTATATE PET/CT:
Multiple DOTATATE avid mesenteric and retroperitoneal nodes in the abdomen, consistent with the known metastatic disease (Blue arrows in A, B, and C).

However, DOTATATE uptake was identified in the left axially lymph node (white arrow in C). Patient didn't have any site of metastatic disease above the diaphragm on any prior study

Note: Physiologic uptake noted in the liver, spleen, kidneys and gastrointestinal tract.

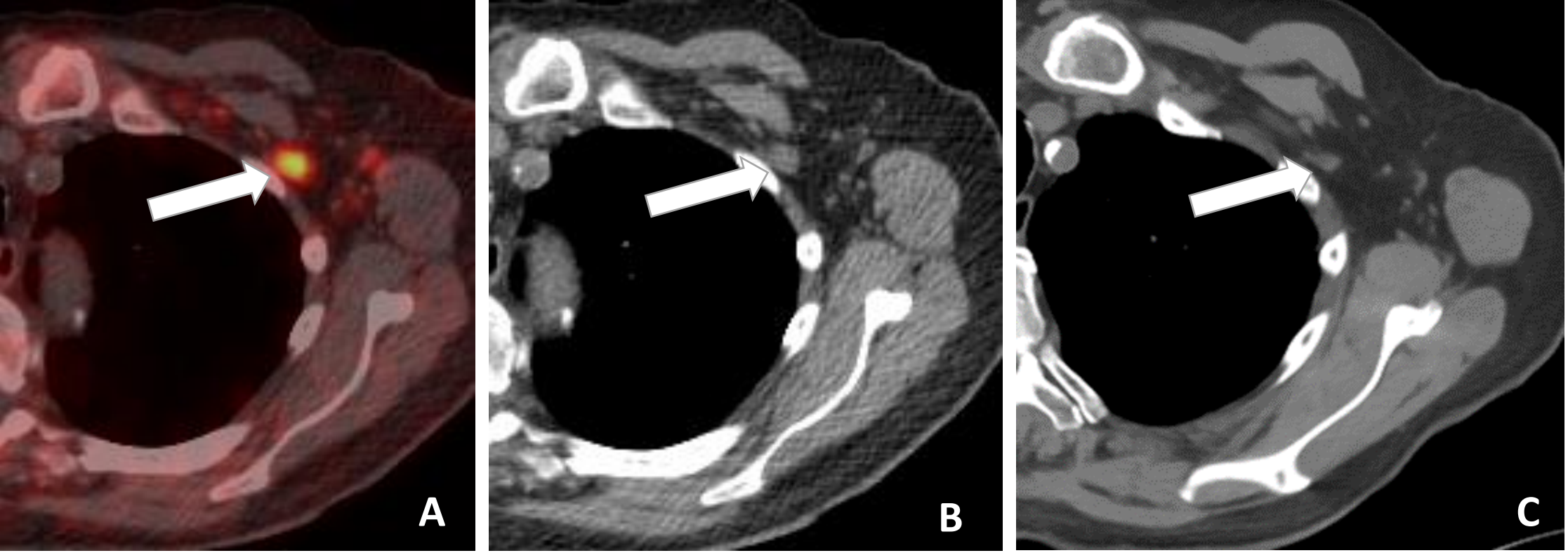


Fig.2: A and B: ^{68}GA DOTATATE PET/CT showed tracer uptake in a borderline size 1 cm left axially lymph node. C: CT from 1 year prior to the current PET/CT showed that the node was smaller in size and previously measuring 0.5 cm.

Discussion

- Review of the medical record revealed history of recent Pfizer SARS-CoV-2 Vaccination in the left deltoid few weeks before the current ^{68}GA DOTATATE PET/CT.

- It is now well known that patient receiving COVID-19 vaccine can develop reactive axillary lymphadenopathy.

- This was reported on CT, MRI, US as well as on FDG-PET/CT, and may mimic metastases in oncologic patients.

Discussion

- ^{68}GA DOTATATE target specifically selective serotonin (SSR2) receptors which are overexpressed in neuroendocrine neoplasms (NENs).
- ^{68}GA DOTATATE PET/CT is a more sensitive and specific functional imaging modality to detect NENs than the Octreotide scan
- Normal bio-distribution of the 68GA DOTATATE tracers include pituitary, salivary and thyroid glands, liver, spleen, kidney, adrenals, pancreas, and prostate

Discussion

- To our knowledge, this is the first report of ^{68}GA DOTATATE tracer uptake localized to the reactive axillary lymph nodes after mRNA COVID-19 Vaccination

- In the current environment radiologist should carefully evaluate the status of COVID-19 Vaccination prior to rendering a diagnosis of metastatic disease

References

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