18F-FDG avid Sclerosing Angiomatoid Nodular Transformation (SANT) of spleen on PET-CT — a rare mimicker of metastasis

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Sclerosing Angiomatoid Nodular Transformation (SANT) is a rare benign vascular tumor of spleen. It consists of multiple angiomatoid nodules surrounded by dense fibrous tissue that often coalesces centrally to form a scar, which is considered to be a characteristic feature. These are usually asymptomatic and incidentally detected on imaging for other underlying pathology. SANTs can be 18F-Fluorodeoxyglucose (18F-FDG) avid on positron emission tomography-computed tomography (PET-CT) and thus can lead to false positive finding in oncological patients.

We here report such a case of a 56 year old female who was diagnosed as squamous cell carcinoma of hypopharynx (Stage IV-T4N1M0, Grade 2). She underwent concurrent chemoradiotherapy with cisplatin. A follow-up 18F-FDG PET-CT with intravenous iodinated contrast was performed 6 months after completion of treatment. PET-CT revealed no local residual or recurrence disease at primary site or nodes (Figure 1A). Both lobes of thyroid gland were enlarged and revealed diffusely increased 18F-FDG uptake (SUV max 13.3), consistent with radiation thyroiditis (Figure 1A, arrow). Interestingly a focal area of 18F-FDG uptake was noted in left hypochondrium (Figure 1A, bold arrow). Contrast enhanced CT and PET-CT (Figure 1B–G) images of the abdomen revealed an 18F-FDG avid (SUV max 5.2), hypodense, space occupying lesion measuring 3.8 × 2.9 cm in size in the inferior pole of spleen (bold arrow) with peripheral nodular contrast enhancement and central enhancing scar (broken arrow). The contrast enhanced CT findings were suggestive of SANT, which was showing 18F-FDG uptake. Fine needle aspiration cytology (FNAC) was attempted from splenic lesion but it revealed predominantly blood with few scattered macrophages and fibrotic fragments. No malignant cells were seen. These findings were consistent with diagnosis of SANT. The patient was kept on follow-up. A follow-up 18F-FDG PET-CT was done after one year but showed no interval change in the splenic lesion, further confirming the diagnosis.

Hence, SANT should be remembered as a differential diagnosis for 18F-FDG avid splenic lesion and findings of contrast enhanced CT in this setting can be very helpful in making a diagnosis. Familiarity with this rare but benign pathology and its 18F-FDG PET-CT features can avoid unnecessary invasive procedures.

Figure 1

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