



Two Rare Benign Lesions on ¹⁸F-FDG PET/CT: Peliosis Hepatis and SANT

¹⁸F-FDG PET/CT'de Saptanan İki Nadir Benign Lezyon: Peliosis Hepatis ve SANT

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Abstract

Peliosis hepatis (PH) and sclerosing angiomatoid nodular transformation of the spleen are uncommon benign lesions. Diagnosis can be difficult in some patients. Herein, we present the case of a 28-year-old woman referred with abdominal pain who had spleen lesions. ¹⁸F-fluorodeoxyglucose (FDG) positron emission tomography/computed tomography revealed multiple non-FDG avid lesions in the liver and hypermetabolic lesions in the spleen. In addition, abdominal magnetic resonance imaging was performed. Histopathology revealed sclerosing angiomatoid nodular transformation in the spleen and PH in the liver.

Keywords: Peliosis hepatis, splenic lesions, liver lesions, ¹⁸F-FDG PET/CT, SANT

Öz

Peliosis hepatis (PH) ve dalağın sklerozan anjiomatoid nodüler transformasyonu nadir görülen benign lezyonlardır. Bazı olgularda tanısı zor olabilir. Bu olguda karın ağrısı şikayeti ile başvuran 28 yaşında, multipl dalak lezyonları saptanan hastayı sunuyoruz. ¹⁸F-florodeoksiglukoz (FDG) pozitron emisyon tomografisi/bilgisayarlı tomografide, karaciğerde çok sayıda FDG tutulumu göstermeyen lezyonlar ve dalakta hipermetabolik lezyonlar izlendi. Ayrıca hastaya batin manyetik rezonans görüntüleme yapıldı. Histopatolojik inceleme ile dalakta sklerozan anjiomatoid nodüler transformasyon ve karaciğerde PH saptandı.

Anahtar kelimeler: Peliosis hepatis, splenik lezyonlar, karaciğer lezyonları, ¹⁸F-FDG PET/CT, SANT

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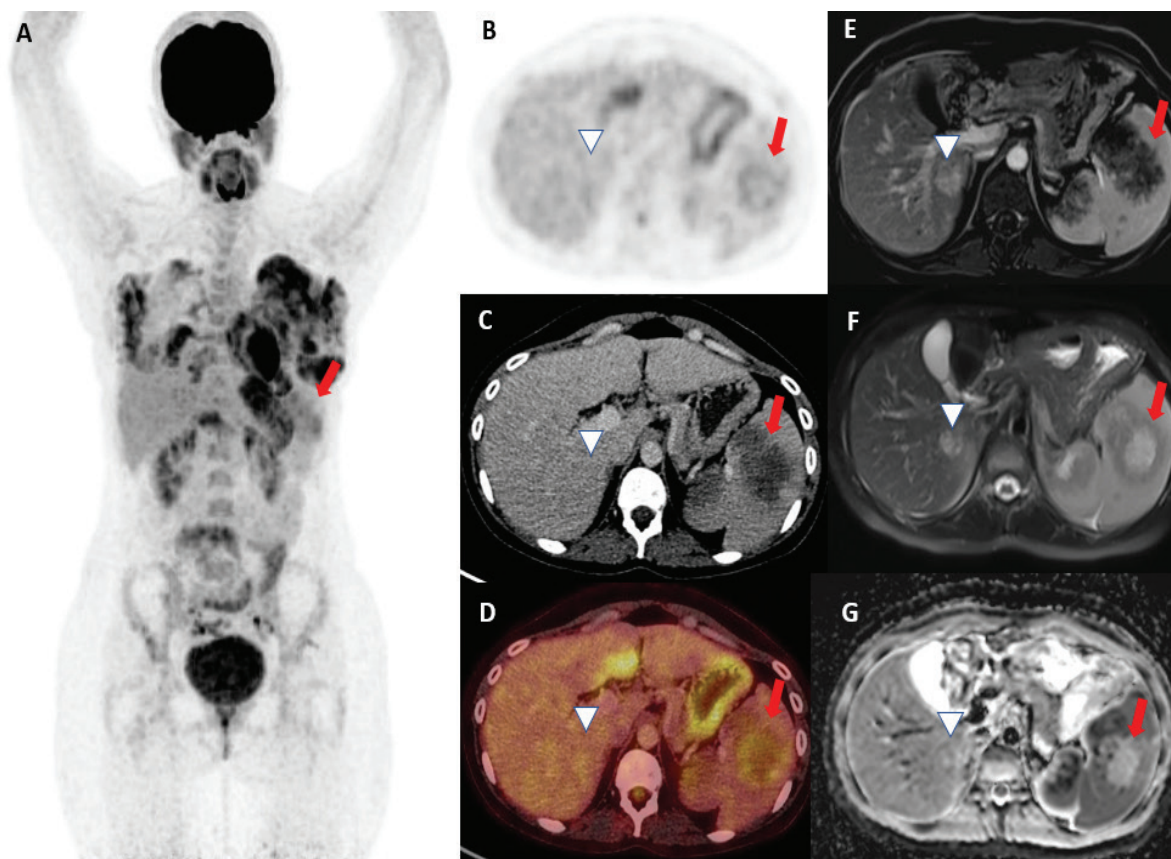


Figure 1. A 28-year-old breastfeeding woman presented with abdominal pain. The patient was referred with multiple spleen lesions for ¹⁸F-fluorodeoxyglucose (¹⁸F-FDG) positron emission tomography/computed tomography (PET/CT) for suspicion of lymphoma. In PET/CT images, multiple hypodense lesions were observed in spleen axial CT slices (C, arrow). These lesions showed peripheral lacy mild FDG uptake on PET and PET/CT [maximum standardized uptake value (SUV_{max}): 4.7] (A, B, D, arrow). In addition, subcapsular multiple hypodense lesions were observed in the liver in axial CT slices and showed no FDG uptake in PET and PET/CT (B, C, D, arrowhead). Multiple intensity projection images showed intense FDG uptake in the bilateral breast parenchyma due to breastfeeding. Abdominal magnetic resonance imaging (MRI) showed multiple hypointense lesions with septa and peripheral enhancement on the T1 delayed phase and hyperintense lesions on the T2 fast spin echo in the spleen (E, F, arrow). In addition, multiple lesions in the liver showed hyperintense increasing contrast enhancement on the T1 delayed phase (E, arrowhead), hyperintense on T2 fast spin-echo (F), and restricted diffusion (G, arrowhead).

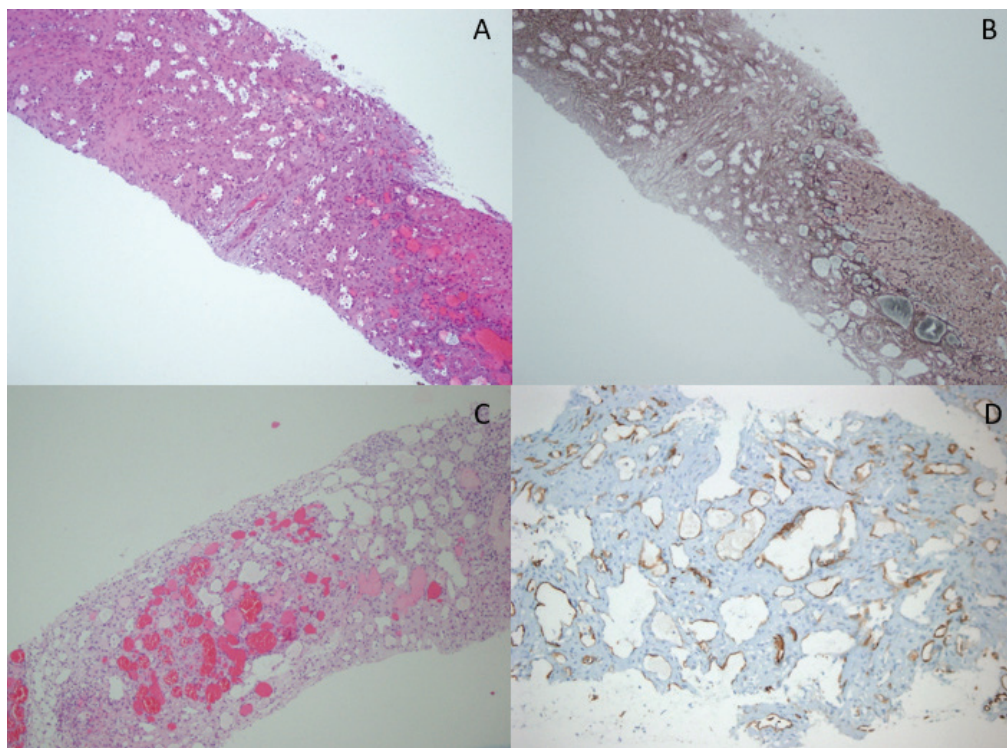


Figure 2. Liver biopsy revealed loss of the parenchyma, proliferated capillary vascular structures within the nodular area characterized by fibrosis in the liver (A, H&E, x200), and reticular fibrosis surrounding the capillary vascular bed (B, reticulin dye x200), and PH diagnosis. In spleen biopsy, pathological examination determined by sclerosing angiomatoid nodular transformation (SANT) showed that vascular capillary proliferation was seen in the spleen (C H&E, x200). The lesion's immunohistochemical staining was positive for CD34 (D, x400). SANT is a benign rare splenic lesion characterized by vascular multi-nodules and presents asymptomatic or abdominal pain (1). SANT in the spleen has a few cases with ¹⁸F-FDG PET/CT showing mild to moderate hypermetabolism (2,3). Peliosis hepatis (PH) is rare, and its etiology includes infections, steroids, and organ transplantation, in some cases unknown (4). PH is an uncommon vascular condition characterized by multiple, randomly distributed, blood-filled cavities throughout the liver. The cavities usually range between a few millimeters and 3 cm in diameter (5). It can be challenging to differentiate PH from malignancy or infectious pathologies because of nonspecific radiologic findings. MRI findings of SANT have been described as T1 hypointense, T2 hyperintense, and peripheral and septal contrast enhancement, known as the spoke wheel pattern (6,7). Isometabolic or hypermetabolic uptake patterns in PH on ¹⁸F-FDG PET/CT have been reported in the literature (7,8). Asymptomatic and small lesions can be followed, but surgery is recommended for SANT and PH (4). Both pathologies could mimic malignancy, but SANT showed false positive uptake in this case. Faint and peripheral uptake patterns could be descriptive of SANT on ¹⁸F-FDG PET/CT.

Ethics

Informed Consent: Patient consent was obtained.

Authorship Contributions

Surgical and Medical Practices: A.S.D., E.B., İ.T.R., T.F.Ç., E.A., Concept: E.A., T.F.Ç., E.B., A.S.D., İ.T.R., Design: T.F.Ç., E.A., E.B., A.S.D., İ.T.R., Data Collection or Processing: İ.T.R., E.B., A.S.D., T.F.Ç., E.A., Analysis or Interpretation: E.A., T.F.Ç., E.B., A.S.D., İ.T.R., Literature Search: E.B., E.A., A.S.D., İ.T.R., T.F.Ç., Writing: E.B., E.A., A.S.D., İ.T.R., T.F.Ç.

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