

Sarcoidosis with skin involvement detected on FDG pet-ct imaging in a patient with known psoriasis

Abstract

¹⁸F - Fluorodeoxyglucose (FDG) PET-CT have found wide application area especially in oncological patients. In the present case, diagnosis of sarcoidosis with skin nodules detected on FDG PET- CT for investigation of malignancy in an adult patient with a known diagnosis of psoriasis was presented. Rare sarcoidosis with skin nodules together with psoriasis case FDG PET-CT findings was demonstrated for the first time in the literature.

Keywords: sarcoidosis, PET-CT, psoriasis

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Case report

PET-CT examination was recommended for underlying primary malignancy to a 60-year-old male patient with a diagnosis of psoriasis due to mediastinal lymphadenopathy and bilateral pulmonary nodules. Following fasting for 9 hours while blood glucose level was 107mg/dl, i.v. 9mCi FDG was injected. Sixty minutes later images to be 2-3minutes per bed in 3D mode were taken from the caldarium to the footpad. Images taken on GE Discovery PET-CT 610 were evaluated after attenuation correction with low-dose CT. Figure 1 demonstrates the FDG PET-CT images of the patient. Nodular lesion with increased metabolic activity (SUV max=10.61) sized approximately 1.5cm was

detected in skin and subcutaneous tissue in the left frontal region. Also hypermetabolic conglomerate lymphadenopathy (SUV max=13:08) in the mediastinal par tracheal, aortic pulmonary and bilateral hilar region and hypermetabolic (SUV max=6.47) peripheral interstitial thickening and reticulonodular view were detected in both lower lobe of lungs. In addition; moderately hypermetabolic nodular lesions (SUV max=6.03), in the skin and the subcutaneous tissue of right posterior gluteal region and forearm were found. PET-CT findings were interpreted as sarcoidosis together with psoriasis and skin nodules and diagnostic biopsy correlation was recommended. Biopsy confirmed the diagnosis of sarcoidosis (Figure 1).

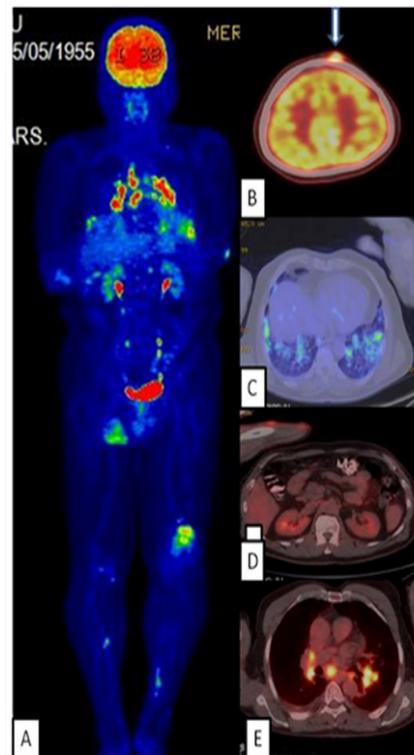


Figure 1 Thirteen-year-old female patient with normal cerebral and muscular magnetic resonance imaging (MRI).

Discussion

Sarcoidosis is known as a systemic inflammatory disease. Pathophysiological mechanisms are still not fully known. Sarcoidosis may be associated with approximately 30% of patients with skin lesions during the disease. These lesions are less common in the form of psoriasis -like skin lesions. Pulmonary sarcoidosis has been reported in association with a limited number of psoriasis in literature.¹ Recent reviews^{2,3} have raised the question whether sarcoidosis together with psoriasis, is a coincidence or an association with common immunopathological mechanisms. In this report, PET-CT imaging findings were presented for the first time in this rare case. FDG PET-CT imaging findings were found suspicious for non-malignant systemic disease and directed the clinician.

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Conflict of interest

Author declares that there is no conflict of interest.

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