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

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).
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. Recent reviews 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.

References