

ABSTRACT

• Introduction: Sarcoidosis is granulomatous disorders which can affect any organ. Chronic course is characteristics in most patients and frequent visiting to doctors happen. 18 F-FDG PET SCAN is find place for it in malignancies. Can we rely on this findings during the course of sarcoidosis? Aim of work: analyse the findings during the 18F FDG PET scan in patients with sarcoidosis. Method: FDG PET SCAN were performed on patients with previously diagnosed sarcoidosis. Obtained findings were analysed. Results: We obtained the results from 50 patients incoming to the Clinic for lung diseases and tuberculosis. Chronic course of sarcoidosis were obtained in 41 patients (27 F/ 14 M, mean ages of 47.7 years) and in 9 patients with acute onset of sarcoidosis (5 F/4M, mean ages of 35.7 years). Activity markers levels for sarcoidosis were obtained and only in acute sarcoidosis levels were high (mean values 83.3 U/L ACE) while in sarcoidosis of chronic course mean values for ACE were 52.2 U/L. The main findings in all patients were enlarged lymph nodes predominantly in mediastini (11 patients), lung involvement with positive scan in 11 patients, positive lymph nodes with positive pulmonary scan in 7 patients. Nonpulmonary positive scan were obtained in 1 female-cortex of central nervous system, muscles -2 patients, myocardii -2 patients, glandula thyroidea - 2 patients, skeletal - 3 patients. Comparative analysis were performed due to CT thoracis scan: 5 patients with fibrous findings appeared positive scan. Another correlation were obtaine due to spirometry and diffusion capacity for CO but no statistical results were obtaine. Conclusion: sarcoidosis is chronic disorders with reactivations phase that wasting for additional therapy. Where is the final point for delivering therapy with positive outcome we don't know, for sure. In that name, could this expansive method, take place as the potential marker of disorders activity. Analysing the obtained results, high metabolic activity in sarcoidosis patients can represent the important parameter assesing the sarcoidosis activity level.

INTRODUCTION

• Sarcoidosis is granulomatous disorders that can affect any organ. Chronic course of diseases is one of the characteristics, so the frequent visiting to the doctors due to new complaints are obvious. Standard markers of diseases activity can be insufficient in some situations and newer are necessitates. 18 F-FDG PET SCAN is find place till now in oncology, but can we rely on this findings during the course of sarcoidosis? The cells of sarcoidosis granulomas as metabolice active, use the glucosa as the energy sources. FDG PET SCAN can visualise the inflammatory granulomatous disorders so the sarcoid activity can be obtaine.

METHOD

• Analyse the findings during the 18F FDG PET SCAN in patients with course of sarcoidosis.
• The analysis is prospective. We obtained the results from 50 patients with previously proved sarcoidosis incoming to the Clinic for lung diseases and tuberculosis Clinical Center Serbia. Pet scan were performed on the Institute for nuclear medicine CC Serbia. Focal uptake of FDG was assessed visually and analysed semi-quantitatively by calculating standardised uptake values SUV.

RESULTS

• Chronic Course of sarcoidosis were obtained in 41 patients (27 F/ 14 M, mean ages of 47.7 years; mean value: ACE-52.7U/L UCa-4.37mmol/L)
• Acute onset of sarcoidosis in 9 patients (5 F/4M, mean ages of 35.7 years; mean value: ACE-83.3U/L UCa-2.35mmol/L).
Pulmonary involvement were obtained in 34 patients, extrapulmonary involvement in 9 patients and lung and nonpulmonary involvement in 7 patients

Lymph nodes		CORRELATION BETWEEN RADIOGRAPHIC STAGE OF PULMONARY SARCOIDOSIS AND FDG PET SCAN FINDINGS			
		RADIOGRAPHIC STAGE OF LUNG SARCOIDOSIS			
		I	II	III	IV
LYMPH NODES - MEDIASTINI	11				
LYMPH NODES - ABDOMEN	17				
CNS	2				
BONNES	5				
GLANDULA THYROIDEA	2				
SALIVARY GLANDS	4				
LUNGS	11				
HEPAR / LIEN	3 / 3				
MUSCLES / MYOCARDII	2 / 3				
		FDG PET SCAN FINDINGS			
		POSITIVE			
		5	1	25	5
		NEGATIVE			
		2	1	2	2



CONCLUSION:

• FDG PET SCAN obtaine the hypermetabolism of certain region of human body that can indicate the potential involving with sarcoidosis. During the performing analyse, another important role of FDG PET SCAN was obtained the diagnostic tool of the unknown organs involving with sarcoidosis.
• FDG PET SCAN is useful method as a part of integrative approach in sarcoidosis theme.