**DIAGNOSTIC SIGNIFICANCE OF TC-99M-PYP RADIONUCLIDE**

**MYOCARDIAL SCINTIGRAPHY, EVALUATING POSSIBLE PRESENCE,**

**SEVERITY OF SARCOID CARDIOMYOPATHY AND SUDDEN CARDIAC DEATH RISK PREVENTION IN 178 SYSTEMIC SARCOIDOSIS PATIENTS STUDIED**

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Purpose:Less than 5% of pulmonary and systemic sarcoidosis. Patients (pts),

accompanied by myo-pericardial involvement, is clinically suspected for cardiac

disease, while the risk of sudden cardiac death is at least expected greater than 60% bibliographically. The purpose of the study is to investigate the possible presence of

cardiomyopathy as well as diagnostic and therapeutic prevention of the risk of sudden cardiac death.

Methods:One hundred seventy eight pts, 56 male and 122 female, mean age 47,8 years, with no clinical evidence of any other cardiac pathology, out of 278,biopsy proven, pulmonary and systemic sarcoidosis pts, followed up for 28 years, were

investigated for the possible presence of asymptomatic, latent, cardiomyopathy.

Further to clinical examination, ECG, pulmonary function and blood tests, pts were submitted to echocardiography and radionuclide myocardial scintigraphy by

technetium-99m-pyrophosphate (Tc-99m-pyp).Two hours after intra venous injection

of 20mCi, isotope uptake was recorded and classified according to computerized percent bias between left (precardiac) and right parasternal area.

Results:1.Abnormal myocardial scintigraphy in 65,9% pts 2.Diastolic ventricular dysfunction(DD) in 51% pts 3.Concomitant presence of abnormal Tc-99m-pyp scan and DD in 41% pts 4.Pericardial effusion(PE) in 49% pts, while 5.PE with

concomitant abnormal scan in 42% pts 6.Asymmetric septal hypertrophy (ASH) co-existed with abnormal scan in 21,5% pts 7.Confirmed sudden cardiac death in 1% pts.

Conclusions:1.Abnormal Tc-99m-pyp scan (69,9%) and DD(51%) could be

compatible, when co-existed, with asymptomatic, latent, presence of cardiomyopathy in at least 41% of pts 2.PE, evaluated in various disease stage in 49% pts totally,

coincides with abnormal myocardial scan in 42% of pts, suggesting of

myo-pericardial involvement 3.ASH, mimicking hypertrophic cardiomyopathy,

coincides with abnormal scan in 21,5% of pts, suggesting of myocardial sarcoidosis

pathophysiology 4.We arise open discussion, weather suggested diagnostic approach of asymptomatic, latent, myocardial involvement as well as immediately applied

early, long term, corticosteroid treatment could really prevent myocardial dysfunction and/or failure as well as the risk of sudden cardiac death, both being responsible for the surprisingly impressive absence of sudden cardiac death cases, restricted finally to 1% only of the sarcoidosie pts studied.

Clinical Implications:Further investigations should be carried out to confirm

diagnostic and therapeutic interventions preventing the risk of sudden cardiac death in

sarcoidosis