

CARDIAC SARCOIDOSIS

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SUMMARY

Cardiac sarcoidosis is a rare complication which occurs in 1-5% of sarcoidosis. We report here a case seen in Olabisi Onabanjo University Teaching Hospital, Sagamu, who presented with heart failure.

INTRODUCTION

Heart Failure is defined as an abnormality of cardiac function in which the ventricles do not deliver an adequate amount of blood to the tissues at rest or during normal activity. The mechanism of myocardial failure is complex, and even an approximate understanding of it demands knowledge of cardiac function, haemodynamic states, water and electrolyte metabolism, renal and endocrine function. In most patients, heart failure results from anatomic lesions of the myocardium, heart valves or pericardium. The list of factors precipitating this, is listed in table 1. When fully developed, the syndrome is characterized by dyspnea, edema, venous congestion, hepatomegaly and often by pleural effusion. There will be variation in the details, depending to the extent of the underlying type of heart disease, but the general pattern is consistent.

Involvement of the heart, by sarcoidosis is rare but may precede the appearances of sarcoidosis elsewhere in the body by several years. The usual manifestation is an arrhythmia but congestive cardiac failure may occur and rarely there may be mitral incompetence from papillary muscle involvement³

CASE REPORT

A 64 year old man came to the emergency department with abdominal swelling, swollen feet, vomiting, cough and difficulty in breathing of two weeks duration. He also had a complaint of general body weakness and pyrexia. On examination the patient was in cardiogenic shock with fast thready pulse of 114/min and cold extremities. He had prominent jugular veins. The blood pressure was 150/110 mmHg. The respiratory rate was 44/min with few basal crepitations. An abdominal examination showed tender hepatosplenomegaly of about 10cm below costal margin. An electrocardiogram showed sinus tachycardia with left atrial enlargement.

The white cell count was normal and the creatinine level was 1.3mg/100ml. The electrolytes were normal but the CA++ level was slightly raised 12.2mg. A chest radiograph was interpreted as showing bilateral hilar lymphadenopathy with a right sided pleural effusion.

A diagnosis of sarcoidosis was made based on characteristic clinical features and radiological appearance. The patient was transferred to the medical ward for management. Patient was placed in cardiac position after the administration of furosemide and aminophylline. Intranasal Oxygen was given PRN. Sputum test done for AFB was negative. Mantoux test was also negative.

The patient died within 48 hours of treatment. Post mortem was done, and histology report showed that the lesion affected mainly the myocardium which consisted of aggregates of epithelioid cells with relatively few lymphocytes and little or no necrosis. This is consistent with sarcoidosis.

DISCUSSION

Sarcoidosis is a multisystem granulomatous disorder of unknown aetiology. Sarcoidosis is seen in different parts of India and other developing countries with almost similar frequency as in the West. It was largely due to lack of awareness and non-availability of investigation for diagnosis that the disease was reported to be rare in the past. A combination of clinical, radiology and histology criteria are used to diagnose sarcoidosis¹. A confident exclusion of other causes of granuloma formation, especially tuberculosis is required. The characteristic radiological finding is a bilateral symmetrical hilar lymphadenopathy.

The histology appearance is non-caseating epithelioid cell granulomas with or without giant cells. The therapy of choice for sarcoidosis is glucocorticoid. Cardiac sarcoidosis occurs in 1-5% of sarcoidosis patients². A symptomatic manifestation of the myocardium is possible, in these cases arrhythmias are most common symptoms³. Cardiac sarcoidosis may mimic and even present as hypertrophic cardiomyopathy. Other cardiac abnormalities include echocardiographic abnormalities, increase in thickness of the interventricular and selective coronary artery cineangiography⁴. This article is aimed at alerting the physician to the possibility of cardiac sarcoidosis in adults with unexplained heart failure.

TABLE 1: CAUSES OF HEART FAILURE

Pulmonary embolism
Infection
Anaemia
Thromboticosis
Pregnancy
Arrhythmias
Myocarditis
Bacterial endocarditis
Physical exertion
Sodium excess
Severe hypertension

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