A 31-year-old black man presented in the emergency room with acute shortness of breath. Physical examination revealed numerous symmetrical asymptomatic firm nodules scattered over his trunk and extremities (Fig 1). Auscultation of his chest revealed diffuse intermittent rales over all lung fields. Review of systems was significant for a ten pound weight loss in the last month, increasing dyspnea on exertion for two months, and polyarthralgias. He denied fever, chills, chest pain, hemoptysis, or sputum production. Arterial blood gas levels on room air showed pH, 7.4; Pco₂, 35; and Po₂, 57. Electrocardiographic examination revealed multifocal premature ventricular contractions.

What is the diagnosis?
   a) Metastatic lung carcinoma
   b) Cutaneous tuberculosis
   c) Leprosy
   d) Sarcoidosis

FIGURE 1

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**Answer: The diagnosis is (d), Sarcoidosis**

Sarcoidosis is characterized by non-caseating granulomas that may involve any organ system. The most common sites are the lungs, skin, heart, eyes and lymph nodes. Immunologic abnormalities involving cell-mediated and humoral immunity are also evident.

Cutaneous manifestations of sarcoidosis are present in approximately 15 to 30 percent of patients with systemic disease. The areas most frequently involved are the face, shoulders, extremities and buttocks. The skin lesions may include erythema nodosum, lupus pernio, and granulomas in the form of papules, plaques or nodules.

Intrathoracic manifestations include bilateral hilar adenopathy with parenchymal involvement. Cardiac involvement may occur in as many as 25 percent of patients. The most common abnormality appears to be premature ventricular contractions. Other findings include congestive heart failure, pericardial effusion, conduction defects, papillary muscle dysfunction, aneurysm, and sudden death.

This patient demonstrated many of the classic findings of sarcoidosis. His chest x-ray film shows bilateral hilar adenopathy and interstitial fibrosis (Fig 2). Skin biopsy from a nodule on his arm revealed non-caseating granulomas. Ophthalmologic examination revealed anterior uveitis, as well as perivasculitis of the retinal veins (Fig 3). Skin testing for histoplasmosis, PPD, candidiasis, dermatophytin, and mumps showed the patient to be anergic. He was subsequently treated with systemic steroid therapy and showed marked improvement in all organ systems.

The most common cancer metastatic to the skin in males is lung carcinoma; in females, breast carcinoma.

Cutaneous tuberculosis is usually caused by *Mycobacterium tuberculosis*. It may occur through primary inoculation ("prosector's wart"), hematogenous spread, or as an id reaction to the underlying infection. These lesions are highly variable, but may resemble warts or keratoses, brownish macules or papules of soft consistency on the face (lupus vulgaris), multiple ulcers, or a lichenoid eruption. This patient's lack of constitutional findings such as cough, sputum production, hemoptysis, and chest pain were factors in the exclusion of this diagnosis.

Lepromatous leprosy can present with nodules which can mimic sarcoidosis or *Mycosis fungoides*. These patients frequently have impaired cellular immunity and develop peripheral neuropathies. Cardiopulmonary findings are not characteristic of *Mycobacterium leprae*.

**References**


**Figure 2**


