Sarcoidosis in a Hong Kong Chinese woman

WK Leung, KIK Lei, A Yim, YK Sit, CKW Lai, R Leung

Sarcoidosis is rare in the Chinese population and most patients with sarcoidosis present with asymptomatic mediastinal lymphadenopathy. We report on a 31-year-old woman who presented with bilateral hilar lymphadenopathy and pulmonary infiltration that spontaneously resolved without treatment, and we present a review of the literature on sarcoidosis among the Hong Kong Chinese population.

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Introduction

Whereas sarcoidosis is not an uncommon disease in western populations, it is considered rare among the Chinese population. The first case of sarcoidosis in Chinese patients was reported in 1954 in the Philippines.[1] In Taiwan, a mass screening of the population (3.6 million people) by radiological survey failed to identify a single case of sarcoidosis in 1964.[2] Since then, only a few cases of sarcoidosis in the Chinese population have been reported.[3-7] Nandi et al[8] reported on four Chinese patients with sarcoidosis in Hong Kong in 1981 and there have been only a handful of confirmed cases of sarcoidosis in Hong Kong over the past decade.[9,10] In this case report, we describe the clinical features of a recently diagnosed local case of sarcoidosis and we review the literature on sarcoidosis among the Chinese population.

Case report

A 31-year-old asymptomatic woman presented to the Department of Medicine at the Prince of Wales Hospital in January 1996 with mediastinal lymphadenopathy following a routine chest X-ray. She denied any constitutional symptoms of fever, night sweat, malaise, or lethargy, There were no respiratory symptoms of cough or dyspnoea. The patient's past health was unremarkable and there was no history of pulmonary tuberculosis. Physical examination revealed no skin lesion, lymphadenopathy, or hepatosplenomegaly. Examination of the chest and eyes gave normal results.

Laboratory investigations showed a normal full blood count and normal serum biochemistry. The erythrocyte sedimentation rate was 15 mm/hr. The serum calcium level was normal, at 2.44 mmol/L (normal range, 2.20-2.50 mmol/L) and the serum phosphate level was near-normal, at 0.72 mmol/L, (normal range, 0.80-1.60 mmol/L). The urinary calcium excretion was normal, at 5.4 mmol/day (normal range, 2.0-7.4 mmol/day). Spirometry recorded a 1-second forced expiratory volume of 2.34 L (80% predicted volume) and a forced vital capacity of 2.77 L (79% predicted volume). The diffusing

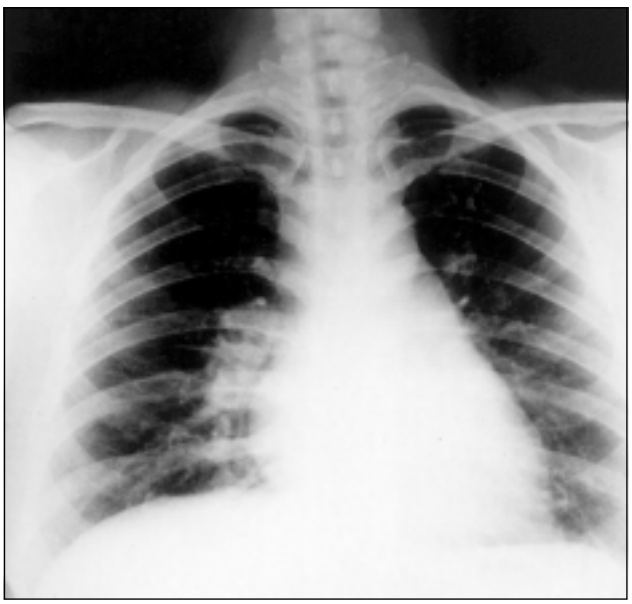

Fig 1. Chest X-ray at time of presentation showing bilateral hilar and paratracheal lymphadenopathy with basal infiltration

Prince of Wales Hospital, The Chinese University of Hong Kong, Shatin, Hong Kong:
Department of Medicine
WK Leung, MRCP
CKW Lai, FRCP
R Leung, FRACP
Department of Clinical Oncology
KIK Lei, MRCP
Department of Surgery
A Yim, Am Bd Surg
Department of Anatomical and Cellular Pathology
YK Sit, MB, BS

Correspondence to: Dr R Leung

capacity was within normal limits (91% predicted volume). The chest X-ray revealed bilateral hilar and paratracheal lymphadenopathy, and reticulonodular infiltrates in the bases of both lungs (Fig 1); these results were confirmed by computerised tomography of the thorax.

The differential diagnoses at this juncture were pulmonary lymphoma or tuberculosis. Thoracoscopy revealed multiple large retrocaval lymph nodes, which on biopsy showed chronic inflammatory infiltration of hyalinized material. Occasional non-caseating granulomata were seen in biopsy specimens of the left-lower lobe. Acid-fast bacilli were not detected in the lymph node or lung biopsy specimens. The diagnosis of sarcoidosis was made by exclusion and, because the patient was asymptomatic, no specific therapy was given. She remained well at follow-up and a serial chest X-ray that was taken 6 months later showed progressive and complete resolution of hilar lymphadenopathy (Fig 2). The spirometry readings and diffusing capacity remained normal.

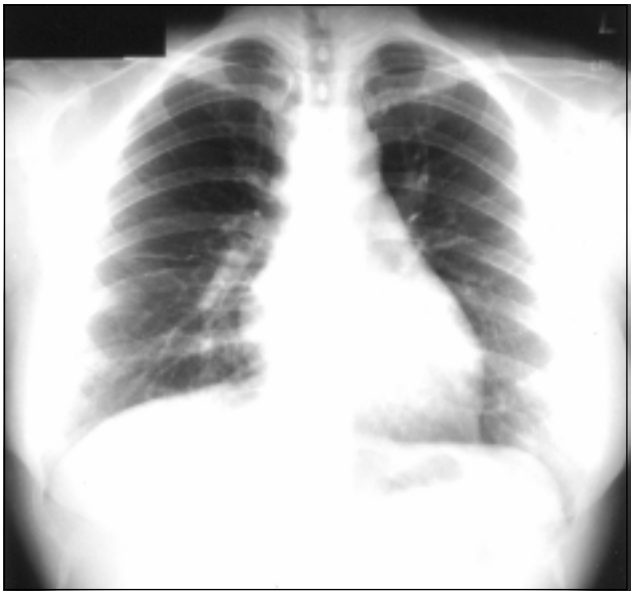

Fig 2. Follow-up chest X-ray showing regression of mediastinal lymph node

Discussion

We report on a case of asymptomatic pulmonary sarcoidosis which resolved spontaneously and without therapy. The characteristics of the patient in this and 11 other reported cases of sarcoidosis in Hong Kong are shown in the Table. There is a slight female preponderance (63.6%) and most patients were in their third decades. Seven patients were asymptomatic at the time of presentation and the other patients presented

Table. Characteristics of 12 reported patients with sarcoidosis in Hong Kong

Patient details	Patient 1	Patient 2	Patient 3	Patient 4	Patient 5
Reference	This case	Nandi et al[8]	Nandi et al[8]	Nandi et al[8]	Nandi et al[8]
Age (years)	30	21	26	20	20
Sex	F	F	F	F	M
Symptoms at presentation	Nil	Nil	Nil	Nil	Nil
Extrathoracic involvement	Nil	Nil	Nil	Nil	Nil
CXR* findings					
hilar LA†	+	+	+	+	+
paratracheal LA	+	+	+	–	–
lung infiltration	+	–	–	–	–
Haemoglobin (g/L)	134	117	122	108	148
Erythrocyte sedimentation rate (mm/hr)	15	20	28	19	10
Serum calcium (mmol/L)	2.44	2.90	2.25	2.40	2.60
Lung function					
volume	Normal	Normal	Mildly impaired	Normal	Normal
diffusion capacity	Normal	Mildly impaired	Normal	Normal	Normal
Specific treatment	Nil	Nil	Nil	Nil	Nil
Progress	Regression	Regression	Regression	Regression	Regression

* CXR chest X-ray
† LA lymphadenopathy
na not applicable

with respiratory symptoms of cough and dyspnoea, extrathoracic complication of uveitis, or diabetes insipidus. Bilateral mediastinal lymphadenopathy was present in all but one patient, who had bilateral infiltration of the upper lung fields. Hypercalcaemia was observed in two patients. Erythema nodosum and other skin lesions—characteristics of sarcoidosis—were not observed in any of the 12 patients, however. The majority showed spontaneous regression of disease and only three patients required systemic steroid therapy.

Sarcoidosis is a multisystem disease of unknown aetiology and its prevalence varies among different ethnic and racial groups. The disease is rare in Asians, except in the Japanese population (where the estimated incidences are 3.8 and 5.6 per 100 000 for males and females, respectively).[11] Owing to the rarity of cases, the actual prevalence and severity of sarcoidosis in our locality is still not well established. Previous reports describing the clinical course of sarcoidosis in different ethnic groups suggest that the disease is most severe in Blacks, intermediate in Asians, and mildest in Caucasians.[12] Erythema nodosum is more commonly seen in Caucasians whereas extrathoracic sarcoidosis is more prevalent in Asians and Blacks. It has been suggested that Asian patients with sarcoidosis from the Indian subcontinent often have extrathoracic disease and a high proportion of these patients require steroid therapy. Extrathoracic involvement has also been reported in Chinese sarcoidosis patients in other parts of the world. These patients may have ocular manifestations such as uveitis,[13] cutaneous involvement in the form of large plaques on the neck and extremities,[6] or cranial polyneuritis.[7]

The prevalence of sarcoidosis in the Chinese population may be underestimated because it often follows a silent and self-limiting clinical course, and because the diagnosis is often missed. It is nevertheless important to differentiate this apparently benign disease from other more common but more serious conditions in our locality, such as tuberculosis and lymphoma; both these diseases have a similar radiological appearance to sarcoidosis. Some earlier cases of sarcoidosis in Chinese patients were indeed treated with antituberculous drugs before the correct diagnosis was made.[4,9]

Sarcoidosis is uncommon in the Hong Kong Chinese population and tends to run a benign course, despite involvement of the lung parenchyma. It affects mainly

Patient 6	Patient 7	Patient 8	Patient 9	Patient 10	Patient 11	Patient 12
Lam et al[9]	Lam et al[9]	Lam et al[9]	Lam et al[9]	Lam et al[9]	Yew[10]	Yew[10]
54	21	17	22	26	31	31
F	M	F	M	M	F	M
Nil	Nil	Diabetes insipidus	Uveitis	Dyspnoea	Malaise	Cough
na	na	Uveitis	Uveitis	na	na	na
+	+	+	+	+	+	–
na	na	na	na	na	na	–
–	–	–	+	+	+	+
na	na	na	na	na	na	na
na	na	na	na	na	na	na
na	na	na	na	na	na	na
Normal	Restrictive	Restrictive	Restrictive	Restrictive	Normal	Restrictive
na	na	na	na	na	Mildly impaired	na
Nil	Nil	Steroid (desmopressin)	Steroid	Steroid	Nil	Nil
Persistence	Regression	Regression	Persistence	Regression	na	na

young females and presents as asymptomatic mediastinal lymphadenopathy. Clinical suspicion is important in identifying this uncommon disease and distinguishing it from pulmonary tuberculosis and lymphoma.

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