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Original Research

Clinical profile of sarcoidosis

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ABSTRACT:

Background: A multi-system granulomatous condition with an uncertain cause is sarcoidosis. Different phenotypes are shown based on the organs involved. The present study was conducted to assess the clinical profile of sarcoidosis. **Materials & Methods:** 56 cases of sarcoidosis of both genders were selected. Laboratory investigations included haemogram, chest radiograph, and sputum smear examination for acid-fast bacilli (AFB), Mantoux test, pulmonary function testing (PFT), electrocardiogram, laboratory tests like serum calcium, serum angiotensin converting enzyme (ACE) levels and 24- hour urinary calcium. Chest radiograph and high- resolution computed tomography (HRCT) was performed in most of the patients. **Results:** Out of 56 patients, 36 were males and 20 were females. Common features were fever seen in 27, uveitis in 20, splenomegaly in 17, Hepatomegaly in 18, weight loss in 14, skin rashes in 6, difficult respiration in 14, cough in 12 and seizures in 7. TLC count was 11700/ cumm of blood, ESR was 56, hemoglobin level was 9.4 g/dL and serum ACE was 154.2 U/mL. The difference was significant (P< 0.05). **Conclusion:** Common features were fever, uveitis, splenomegaly, Hepatomegaly, weight loss, skin rashes, difficult respiration, cough and seizures.

Keywords: hemoglobin, splenomegaly, sarcoidosis

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INTRODUCTION

A multi-system granulomatous condition with an uncertain cause is sarcoidosis. Different phenotypes are shown based on the organs involved. But the lymphatic system and lungs are the main organs affected by sarcoidosis. Nearly every region of the world has recorded cases of sarcoidosis, with varying epidemiologic findings across various investigations.[1] The incidence rate of sarcoidosis in the United States was 6.3/100,000 person years for women and 5.9/100,000 person years for males.[2]Sarcoidosis, however, has not received enough attention, particularly from underdeveloped nations where facilities for invasive diagnostic testing are lacking and the illness bears similarities to tuberculosis (TB). These factors contribute to the underdiagnosis of sarcoidosis, despite increased knowledge among doctors who are more watchful for it.[3,4]

The actual prevalence of sarcoidosis in India is unknown due to a lack of trustworthy epidemiological data. The first reports of sarcoidosis from India were published in Calcutta, specifically pertaining to the Marwari people in the East.[5] However, reports of the disease have now come from additional locations. Sarcoidosis is commonly treated as tuberculosis in India due to the high prevalence of tuberculosis there and the similarity in clinical aspects.[6,7]The present study was conducted to assess the clinical profile of sarcoidosis.

MATERIALS & METHODS

The study was carried out 56 cases of sarcoidosis of both genders. All gave their written consent to participate in the study.

Data such as name, age, gender etc. was recorded. Laboratory investigations included haemogram, chest radiograph, and sputum smear examination for acid-fast bacilli (AFB), Mantoux test, pulmonary function testing (PFT), electrocardiogram, laboratory tests like serum calcium, serum angiotensin converting enzyme (ACE) performed in most of the patients.Results thus obtained were subjected to statistical analysis. P value < 0.05 was considered significant.

RESULTS

Table I Distribution of patients

Total- 56		
Gender	**Male**	**Female**
Number	36	20

Table I shows that out of 56 patients, 36 were males and 20 were females.

Table II Assessment of parameters

Parameters	Variables	Number	P value
Clinical profile	Fever	27	0.75
	Uveitis	20	
	Splenomegaly	17	
	Hepatomegaly	18	
	Weight loss	14	
	Skin rash	6	
	Difficult respiration	14	
	Cough	12	
	Seizures	7	
Lab findings	TLC (/ cumm)	10500	-
	ESR	56	-
	Hemoglobin (g/dL)	9.4	-
	ACE (U/mL)	154.2	-

Table II shows that common features were fever seen in 27, uveitis in 20, splenomegaly in 17, Hepatomegaly in 18, weight loss in 14, skin rashes in 6, difficult respiration in 14, cough in 12 and seizures in 7. TLC count was 11700/ cumm of blood, ESR was 56, hemoglobin level was 9.4 g/dL and serum ACE was 154.2 U/mL.The difference was significant (P< 0.05).

DISCUSSION

Although sarcoidosis usually presents with bilateral hilar lymphadenopathy and lung infiltration, multiple organ systems may be involved.[8,9] The disease mainly affects people in the third and fourth decades of life, but may also occur in children and elderly subjects.[10,11]It could affect the kidneys, liver, and central nervous system.[12,13] A trisomy of skin rash, uveitis, and arthritis is more common in younger children (less than 5 years old) than pulmonary and mediastinal involvement. There is little information available on the course of the disease, successful treatments, and outcomes for childhood sarcoidosis.[14,15] While the surveillance and treatment plan are not clearly defined, the diagnostic criteria are. Since many sarcoidosis patients do not exhibit symptoms, it is challenging to estimate the true incidence and prevalence of the disease globally. Approximately 60 cases of the disease per 100,000 people are documented in northern Europe, compared to less than 10 cases per 100,000 people in southern European countries.[16,17]The present study was conducted to assess the clinical profile of sarcoidosis.

We found that out of 56 patients, 36 were males and 20 were females. Kumar et al[18]retrospectively studied 146 patients diagnosed to have sarcoidosis. Majority of them (70%) were more than 40 years of age; females comprised 58.2% of the patients. Before coming to our clinic, 30% patients had been misdiagnosed to have TB. Cough (89.7%) was the most common presenting symptom; joint symptoms (28.8%) and end inspiratory crepitations at lung bases (49.3%) were other salient manifestations. Cutaneous involvement and digital clubbing were rarely seen. Pulmonary function testing showed restriction with impaired diffusion in 72.7% patients. The most common radiological feature was bilaterally symmetrical hilar lymphadenopathy. Transbronchial lung biopsy (TBLB) had a very high diagnostic yield (90.8%)

We found that common features were fever seen in 27, uveitis in 20, splenomegaly in 17, Hepatomegaly in 18, weight loss in 14, skin rashes in 6, difficult respiration in 14, cough in 12 and seizures in 7. TLC count was 11700/ cumm of blood, ESR was 56, hemoglobin level was 9.4 g/dL and serum ACE was 154.2 U/mL. Hoffmann et al[19] found that clinical features at the time of diagnosis were fever (83%), uveitis (50%), difficulty in breathing (44%), hepatosplenomegaly, weight loss, arthritis and peripheral adenopathy. Imaging findings included: hilar adenopathy (94%), abdominal nodes (50%) and pulmonary infiltrates (44%). All children were treated with steroids (range 6-12 months) and weekly low dose oral methotrexate. All patients showed significant improvement over a mean (SD) duration of follow-up of 3.1 (0.9) years, as assessed by resolution of clinical symptoms, and improvement in spirometry parameters, erythrocyte sedimentation rate, and serum angiotensin converting enzyme levels.Shorr et al[20]determined the yield of endobronchial biopsy (EBB) for suspected sarcoidosis, and to evaluate if EBB increases the diagnostic value of fiberoptic bronchoscopy (FOB) when added to transbronchial

biopsy (TBB).All patients having FOB performed underwent an evaluation that included history, physical examination, a chest radiograph, and spirometry. During FOB, airway appearance was recorded and both TBB and EBB were performed in a standardized fashion. Six TBB specimens were obtained, as were six EBB samples. For patients with abnormal-appearing airways, four specimens were obtained from the abnormal-appearing airways and two specimens were obtained from the main carina. In patients with normal-appearing airways, four specimens were obtained from a secondary carina and two specimens were obtained from the main carina. The study cohort included 34 subjects (mean +/- SD age, 37.9 +/- 6.8 years; 58.8% were male; 64.7% were African American). EBB findings were positive in 61.8% of patients, while TBB showed non-necrotizing granulomas in 58.8% of subjects. The addition of EBB increased the yield of FOB by 20.6%. Although EBB findings were more frequently positive in abnormal-appearing airways (p = 0.014), EBB provided diagnostic tissue in 30.0% of patients with normal-appearing endobronchial mucosa. There were no complications resulting from the addition of EBB to TBB.

The shortcoming of the study is small sample size.

CONCLUSION

Authors found that common features were fever, uveitis, splenomegaly, Hepatomegaly, weight loss, skin rashes, difficult respiration, cough and seizures.

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