Sarcoidosis, a report from Guilan province (۲۰۰۱-۰۹)

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Abstract

Introduction: Sarcoidosis is a chronic and multi organ inflammatory disorder of unknown etiology that affects all racial and ethnic groups and occurs at all ages. There are few studies on the disease in Iran. The aim of this study was to assess the clinical and epidemiological features of sarcoidosis patients in a referral clinic of pulmonary disease in Rasht.

Material and methods: The study is retrospective and done by review of sarcoidosis patient's records in a pulmonary clinic in Rasht from ۲۰۰۱-۰۹. Two groups of patients were entered:

۱. Cases with definitive diagnosis of sarcoidosis;

   a. Patients with Lofgren syndrome (sudden onset, fever, Erythema nodosum, Bi Hilar Lymphadenopathy, ankels arteritis)

   b. Patients who after considering the clinical and radiographic evaluation were biopsied (usually the lungs, but some for the skin and lymph nodes) and the view is confirmed in sarcoidosisnoncaseating granulomatous by the pathologist. In these patients, other disease in the differential diagnosis of sarcoidosis (usually TB and lymphoma) has been rejected based on clinical manifestations and laboratory data.

۲. Cases with the potential diagnosis of sarcoidosis; Patients based on clinical and radiographic findings of pulmonary sarcoidosis have been discussed as a possible case (they did not consent to biopsy or enforcement action under clinical conditions was not possible) and in the course of the disease the differential diagnosis of sarcoidosis have been rejected.

Patients included in two groups: those who directly visited due to respiratory problems, and those who referred for consultation to the pulmonary clinic, because of the specific organ

involvement such as arthritis or ocular involvement from relevant experts, around the province. Patient's data was collected by reviewing the records and completing the checklist prepared for demographic characteristics (age, sex, duration of symptoms, living area, and employment status), patient's sign and symptom and paraclinic finding (laboratory data, radiographic findings and Pulmonary Function Test. All statistical analyses were achieved using SPSS software (SPSS version ۱۸, USA).

Results: There were ۳۹۲ cases in the study during ۸ years. The prominent sex was female (n=۲۴۹, ۶۳.۵٪). The mean age was ۴۲.۸ ± ۹.۸. Geographical distribution showed that ۱۲.۹٪ of cases (n=۵۰) were settled in the east and ۷۸.۵٪ (n=۳۰۸) in the west of Guilan. Others (n=۳۴, ۸.۶٪) were referred from the neighborhood of Guilan.There were ۲ cases (۰.۰۵٪) withhistory of TB and ۹ cases (۲.۳٪) were diagnosed as having Asthma.Regarding to smoking history, 362 cases (92.3%) were nonsmoker.The most common signs and symptoms were related to respiratory complaints (n=۲۴۸, ۶۳.۳٪), systemic disorder (n=۱۲۷, ۳۲.۴٪) and musculoskeletal compliant (n=۸۰, ۲۰.۴٪).There were ۲۸ patients (۱۴.۷٪) with erythema nodosum and three patients (۰.۸٪) have been suffering from uveitis. According to Chest X-Ray, ۶۱.۳٪ (n=۱۱۹) had bilateral hilar lymph adenopathy (BHL) alone (stage ۱), and ۲۴.۲٪ (n=۴۷) had BHL and parenchymal involving (stage ۲).The most prevalence of chestCT scan findings was LAP (n=183, 46.7%) and interstitial lunginvolvement (n=112, 28.6%). The most common abnormality finding in spirometry was small airway disease ($MMEF_{۲۵-۷۵}$ <۶۵٪).Serum Angiotensin Converting Enzyme (ACE) level was requested for 195 patients thatin 151 (77.4%) ACE level was higher than normal level. Serum Ca level was evaluated in 142 cases and hypercalcemia was seen in four patients (2.8%). Urinary Ca level was measured in 84 and hypercalciuria was seen in 15 patients (17.8%). PPD test was performed for 144 patients and was positive (>15 mm) in 8 cases (5.5%). Diagnosis of sarcoidosis was confirmed in ۲۹۳ patients (previously diagnosed (n=۳۳, ۱۱.۳٪), Lofgren syndrome (n=۱۴۷, ۵۰.۲٪), and confirmed by biopsy (n=۱۱۳, ۳۸.۵٪)). We had ۹۹ patients (۲۵.۳٪) in the suspected group. Diagnostic biopsy was done in۱۲۳ patients. The most biopsied organs were lung parenchymal (bronchoscopy and TBLB) (n=۶۰; ۴۸.۸٪), skin (n=۲۹; ۲۳.۶٪), and bronchus (n=۱۸, ۱۴.۶٪). The

follow-updata was available for ۲۷۵ cases; ۱۱۷ patients (۲۹.۸٪) had only one visit and Some patients (n=۹۸; ۳۵.۷٪) had follow-up period less than ۱ year. ۱۷۸ patients (۴۵.۲٪) showed significant improvement clinically, radiologically or both. Sixty three cases (۱۶.۱٪) showed recurrence over the follow up period. There was only one case deteriorated the clinically and radiologically. The remaining ۳۳ patients had unchanged and non-progressive condition.

Conclusion:

It seems many clinical and radiological aspects of sarcoidosis in our patients are similar to other series. However, presentation with Lofgren syndrome is a common feature and skin (n=۴۸, ۱۲.۳٪) and eye (n=۱۹, ۴.۸٪) involvement are less frequent. Of course this may be due to referral issues of patients and medical teamwork connections. There is significant difference between west and east of Guilan in relation to referred patients (۱۲.۹ % vs۷۸.۵٪ respectively).

Key words: Sarcoidosis, epidemiology, Guilan