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A 47-Year- Old Woman with Chronic Relapsing Arthritis and New Onset Skin Lesions

Sepideh Emami[1], Seyed Mohammad Reza Hashemian[1], Hamid Reza Vahabzadeh[1] Fahimeh Sh. Tabatabaii [1], Forozan Mohammadi [2,3], Seyed Davood Mansoori [1,4]

[1] Department of Internal Medicine, Division of Infectious Disease and Clinical Immunology, [2] Department of Clinical Anatomical Pathology, [3] Mycobacteriology Research Center, [4] Lung Transplantation Research Center, NRITLD, Shaheed Beheshti University of Medical Sciences and Health Services, TEHRAN- IRAN.

A 47-year-old woman was referred to our hospital with history of occasional arthritis since two years ago. She also noted low grade fever, progressing fatigue, malaise, morning stiffness and occasionally dry coughs. She was treated as Rheumatoid Arthritis with irregular use of prednisolone and hydroxychloroquine but no improvement occurred.

Over the twenty days preceding the current admission, she experienced skin eruptions including red non-itchy palpable nodules on face, back and limbs. She did not mention any weight loss, sputum producing coughs or high grade fever. She denied tobacco use; she did not have any medical problem in her history. She used NSAIDs occasionally. At the time of hospital admission, she was afebrile and looked healthy. Vital signs were normal. She had bilateral expiratory wheezing in lungs, mild swelling in wrist joints, knees and ankles without effusion or deformity. All the joints had full passive range of motion. Skin examination revealed red-purple papules and plaques on forehead, back, elbow and dorsum of feet (fig 1). A painful 2x2 cm red nodule was seen on anterior surface of the right leg (Figure 2). The results of laboratory tests were: ESR: 40, CRP: positive, RF: negative, Ca: 9.5 and P: 4.7. Liver enzymes level and CBC were ANA, ANCA (C&P), Anti-ds DNA all were negative. CXR is shown in figure 3. It should be emphasized that she had not obtained any CXR previously during her illness. ***(Tanaffos 2007; 6(1): 81)***

WHAT IS YOUR DIAGNOSIS?

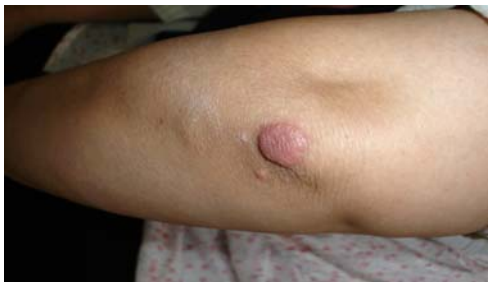

Figure 1. Red-purple nodule on elbow

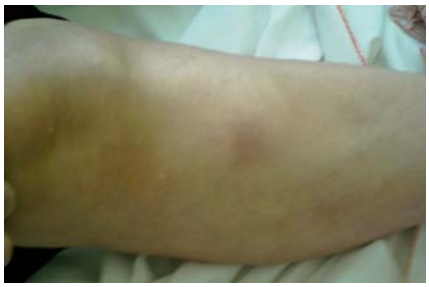

Figure 2. Erythema nodosum in right foot

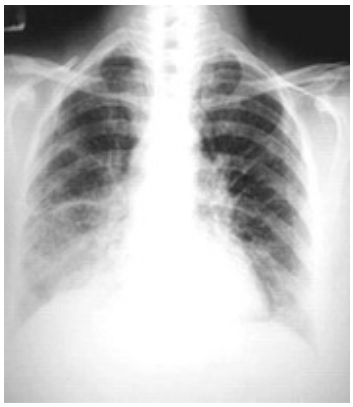

Figure 3. CXR of patient

Correspondence to: Mansoori SD
Address: NRITLD, Shaheed Bahonar Ave, Darabad, TEHRAN 19569, P.O:19575/154, IRAN
Email address: dmansouree@yahoo.com

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Diagnosis: Sarcoidosis

CXR shows diffuse reticular infiltrations with bilateral hilar adenopathy. Chest spiral CT-Scan confirmed that and demonstrated diffuse bilateral fine nodules and reticular infiltration in both lungs (Figure 4) and right paratracheal and bilateral hilar adenopathy (Figure5).

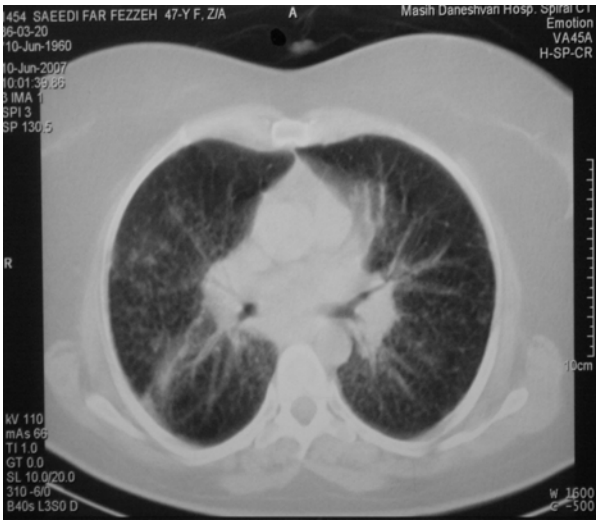

Figure 4. Diffuse bilateral fine nodules and reticular infiltration in lungs

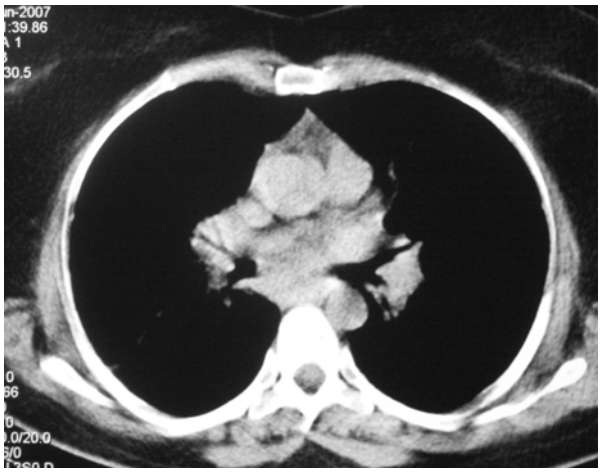

Figure 5. Right paratracheal and bilateral hilar adenopathy

Pulmonary function test revealed moderate restrictive pattern .Skin histology demonstrated non-necrotizing granulomas (Figure 6). Pulmonary tissue obtained by transbronchial lung biopsy was negative for any organism and showed non-necrotizing granulomas (Figure 7). Bronchoalveolar lavage (BAL) had high cell count, lymphocytosis and elevated CD4/CD8 ratio (Figure 8).

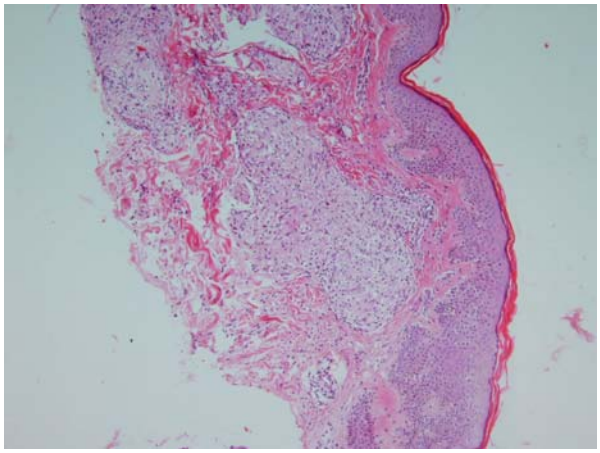

Figure 6. Skin biopsy with non- necrotizing granuloma

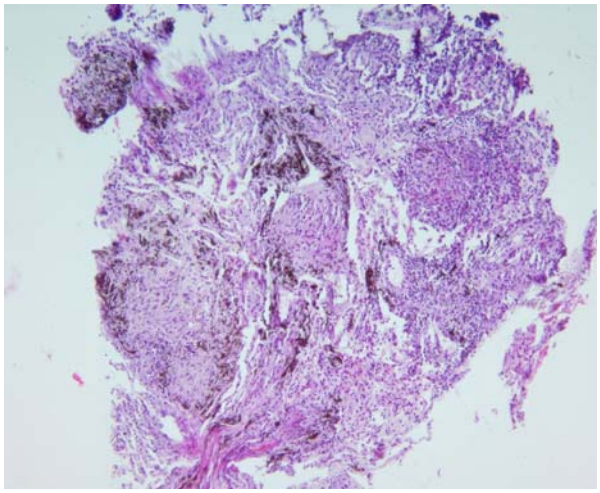

Figure 7. Lung tissue with multiple non- necrotizing granulomas

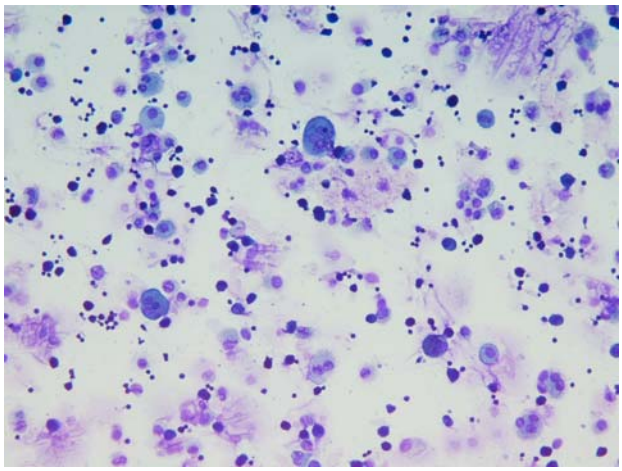

Figure 8. High cell count and lymphocytosis in bronchoalveolar lavage

Angiotensin Converting Enzyme (ACE) level was more than 120 (Normal 5-52).

Due to constellation of skin lesions, non deforming arthritis, the pattern of CXR and chest CT scan, non-necrotizing granulomas in both skin and lung tissue and also high serum ACE level, the diagnosis of sarcoidosis was confirmed (1).

Sarcoidosis is a multisystem granulomatous disorder of unknown etiology that affects individuals worldwide and is characterized pathologically by the presence of non-caseating granulomas in involved organs. It typically affects young adults, and initially presents with one or more of the following abnormalities: bilateral hilar adenopathy, pulmonary reticular opacities, skin, joint, and/or eye lesions (2, 3).

Cutaneous involvement is seen in up to 20 percent of patients with sarcoidosis, and is often an early finding. Several skin lesions can occur (4): A maculopapular eruption is the most common subacute lesion (5). Waxy, pink nodular lesions are frequently distributed on the face, trunk, and extensor surface of the arms and legs. Plaque-like lesions can occur in chronic sarcoidosis including lupus pernio.

Musculoskeletal system involvement may occur in up to ten percent of patients with sarcoidosis. Manifestations include: acute polyarthritis; chronic arthritis with periosteal bone resorption and diffuse granulomatous myositis (3).

Interesting point of this patient is long standing reactive arthritis with no pulmonary complaint which led to false diagnosis and treatment as R.A., despite negative rheumatoid factor. The patient is taking prednisolone 30 mg/day, and is doing well with disappearance of skin lesions and arthralgia.

CONCLUSION

We recommend considering sarcoidosis in differential diagnosis of any patient with chronic arthritis without definite diagnosis and also obtaining a CXR. Probably this simple test could lead to correct diagnosis, appropriate treatment and prevention of pulmonary complications.

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