Case of Pulmonary Rheumatoid Nodules in Rheumatoid Arthritis

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Fig. 1 : Chest radiograph showing multiple pulmonary nodules before anti-tubercular treatment

Fig. 2 : Chest radiograph showing persisting multiple pulmonary nodules after anti-tubercular treatment

A 72 year old male patient, with rheumatoid arthritis of 20 years duration presented to us in 2009 with weight loss of 3 kg and no respiratory symptoms. Additional features included a history of empyema nineteen years back treated as tuberculosis (old chest radiographs not available). He also had history of subcutaneous rheumatoid nodules. He had been taking methotrexate and leflunomide for many years and was well controlled on 17.5 mg of methotrexate per week and 10 mg of leflunomide per day. In view of weight loss Xray chest was done which showed multiple well defined pulmonary nodules 1 to 1.5 cm in size (Figure 1). A differential diagnosis of tuberculosis, neoplasm, metastasis, rheumatoid nodules, and methotrexate induced nodulosis was considered. CT guided biopsy of nodule showed necrotizing granuloma. Patient received antitubercular treatment for 9 months. Repeat X ray chest showed persistent nodules without any change in size (Figure 2). Our final diagnosis was pulmonary rheumatoid nodules.

Rheumatoid nodules are more common in males and typically occur in patients with long standing disease. Rheumatoid nodules occur most commonly in skin and subcutaneous tissue, but they may also appear in lung, heart and upper airway.

The prevalence of rheumatoid nodules in rheumatoid arthritis patients is 2% on X-ray chest¹ and 22% on CT chest.² They may be asymptomatic. They may regress with or without treatment, enlarge, or persist. They may lead to complications like empyema, pleural effusion, and pneumothorax and bronchopleural fistula.³ Biopsy of nodules shows central area of fibrinoid necrosis surrounded by pallisading mononuclear cells.

References


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